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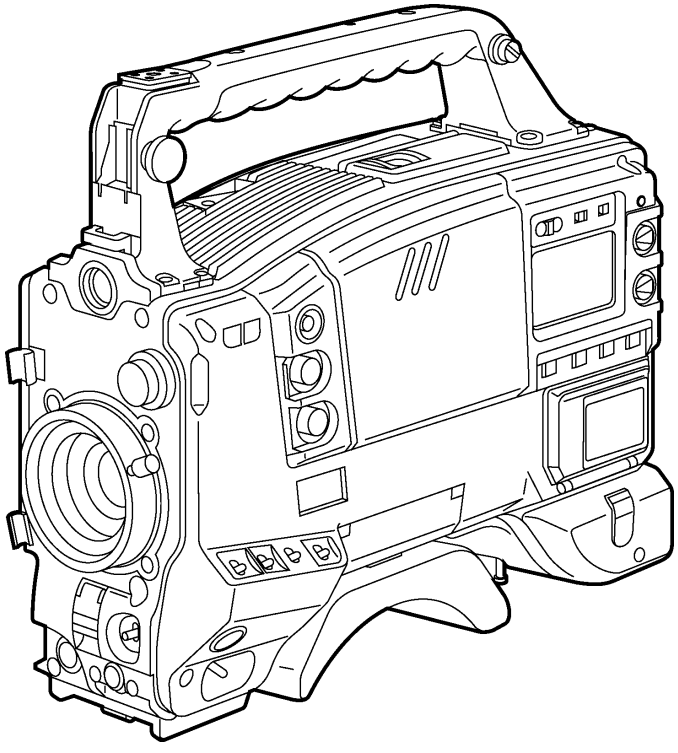
Service Manual

DVCPRO HD

Camera/VTR

AJ-HDC27AP

Sec. 1 Operating Instructions
Sec. 2 Service Information
Sec. 3 Disassembly Procedures
Sec. 4 Mechanical Adjustment
Sec. 5 Electrical Adjustment
Sec. 6 Block Diagrams
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Sec. 9 Exploded Views & Replacement Parts List



Panasonic®

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Specifications

[GENERAL]

Supply voltage:
DC 12 V (DC 11 V—DC 17 V)
Power consumption:
38 W (maximum)
32 W (during SAVE REC mode)

Ambient operating temperature:
+32°F to +104°F (0°C to +40°C)
Storage temperature:
–4°F to +140°F (–20°C to +60°C)
Ambient operating humidity:
Less than 85% (relative humidity)
Continuous operating time:
Approx. 70 minutes
(when using the 14/40W Anton/Bauer Trim pack)
Weight:
9.46 lb (4.3 kg) (main unit only)
Approx. 15.4 lb (7 kg)
(including main unit, viewfinder, lens, battery pack, tape and microphone)
Dimensions (W × H × D) (excluding grip):
5 1/4″ × 8 1/16″ × 12 3/8″ (132 × 204 × 313 mm)

[CAMERA UNIT]

Pickup device:
2/3″ on-chip IT-type CCD (1 million pixels)
System:
RGB 3-CCD system
Total number of pixels:
1370 (H) × 744 (V)
Number of effective pixels:
1280 (H) × 720 (V)
Optical system:
F/1.4 prism system
Built-in filters:
CC filter:
A: CROSS, B: 3200 K, C: 4300 K, D: 6300 K
ND filter:
1: CLEAR, 2: 1/4 ND, 3: 1/16 ND, 4: 1/64 ND
Quantizing:
10-bit non-linear
Sampling frequency:
74 MHz
Digital signal processing:
74 MHz
Horizontal drive frequency:
74 MHz
Programmable gain:
Choice of 3 positions (L/M/H) from –6 dB/–3 dB/ 0 dB/3 dB/6 dB/9 dB/12 dB/18 dB/24 dB/30 dB
Super gain:
18 dB/24 dB/30 dB/36 dB selectable
Shutter speed:
Preset:
1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 sec.
Synchro scan:
1/60.0 to 1/251.3 sec.
Lens mount:
2/3″ Bayonet type
Sensitivity:
F10 (2000 lux, 89.9% reflection)
Minimum subject brightness:
0.7 lux (with F/1.4, +36 dB)
Video S/N ratio:
54 dB (typ.)
Horizontal resolution:
More than 700 TV lines (center)
Registration:
Less than 0.03% (entire range) (excluding lens)

Specifications

[VTR UNIT]

VTR Video System

Sampling frequency:
Y : 74 MHz
P_B/P_R : 37 MHz
Quantizing:
8 bits
Video compression system:
DCT + variable-length code
Video compression ratio:
1/6.7
Error correction:
Reed-Solomon product code
Video recording bit rate:
100 Mbps
Video band:
Y : 20 MHz
P_B/P_R : 10 MHz

VTR Audio System

(during playback on standard player)

Sampling frequency:
48 kHz (synchronized with video)
Quantizing:
16 bits
Frequency response:
20 Hz to 20 kHz ±1.0 dB (at reference level)
Dynamic range:
More than 85 dB (at 1 kHz, AWTD)
Distortion:
Less than 0.1% (at 1 kHz, reference level)
Wow and flutter:
Below measurable limits
Head room:
20 dB

VTR Tape Transport System

Tape used:
1/4˝ DVCPRO L-size cassette tape
Tape speed:
135.28 mm/sec.
Recording/playback time:
46 minutes (using AJ-HP46LP)
32 minutes (using AJ-HP32LP)
FF/REW time:
Approx. 3 minutes (using AJ-HP46LP)

[Connector Section]

Input

AUDIO IN CH1/CH2 (XLR×2, 3-pin female)
LINE/MIC/MIC+48V switching type
LINE : +4 dBu
MIC : –60 dBu
MIC+48V: Phantom +48V, –60 dBu
MIC IN (XLR, 3-pin female)
–40 dBu (switchable to –50 dBu using internal switch)
Phantom +48 V supported
GENLOCK IN (BNC):
Compliant with SMPTE296M (analog sync) standard
TC IN (BNC):
0.5 V—8 V [p-p], high impedance

Output

HD SDI OUT (BNC×2):
0.8 V [p-p], with switch function
AUDIO OUT (XLR, 5-pin male):
+4 dBm
TC OUT (BNC):
2.0 V [p-p], low impedance
PHONES:
Stereo mini jack

Other

DC IN (XLR, 4-pin male):
DC 12 V (DC 11 V—17 V)
DC OUT (4-pin):
DC 12 V (DC 11 V—17 V), 0.1 A (max.)
LENS (12-pin)
ECU (6-pin)
EVF (20-pin)

Specifications

[VIEWFINDER]

(Optional accessory: AJ-HVF27P)

CRT:
2″ high-resolution monochrome tube
Video system:
720P/59.94 Hz
External adjustment controls:
Controls:
BRIGHT, CONTRAST, PEAKING
Switches:
TALLY HIGH/OFF/LOW, ZEBRA ON/OFF

[ACCESSORIES]

- Shoulder strap (×1)
- Battery terminals (including screws) for supporting Sony battery packs
- Battery holder (already installed on main unit) for Anton/Bauer battery packs

[RELATED COMPONENTS & PARTS]

Relating to power supply

Battery pack:
AU-BP402, AJ-BP490
Battery charger:
AG-B425 (for charging AU-BP402 battery pack)
AJ-B450 (for charging AJ-BP490 battery pack)
Battery case:
AU-M402H
AC adapter:
AJ-B75

Viewfinder

2.0″ viewfinder:
AJ-HVF27P

Relating to external VTRs

Extension control unit:
AJ-EC3

Audio components

Microphone kit:
AJ-MC700P
Mic holder:
AJ-MH700P
Wireless mic receiver:
WX-RJ700
Camera attachment:
WX-ZJ770

Maintenance products

Cleaning tape:
AJ-CL12LP
Soft carrying case:
AJ-SC900
Rain cover:
SHAN-RC700

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been over-heated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than 5MΩ.

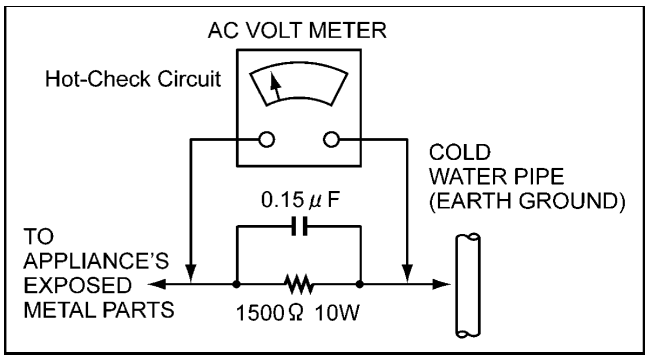


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.
   Do not use an isolation transformer for this check.
2. Connect a 1.5KΩ, 10W resistor, in parallel with a 0.15μ F capacitor, between each exposed metallic part on the set an a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ED) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
   Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
   (most replacement ES devices are package with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

Note : It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV,±0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

FCC Note:

This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Replace battery with part No. CR2032 only.
Use of another battery may present a risk of fire or explosion.
Caution—Battery may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.



ATTENTION:

The product you have purchased is powered by a nickel cadmium battery which is recyclable. At the end of it's useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

▭ indicates safety information.

SECTION 4

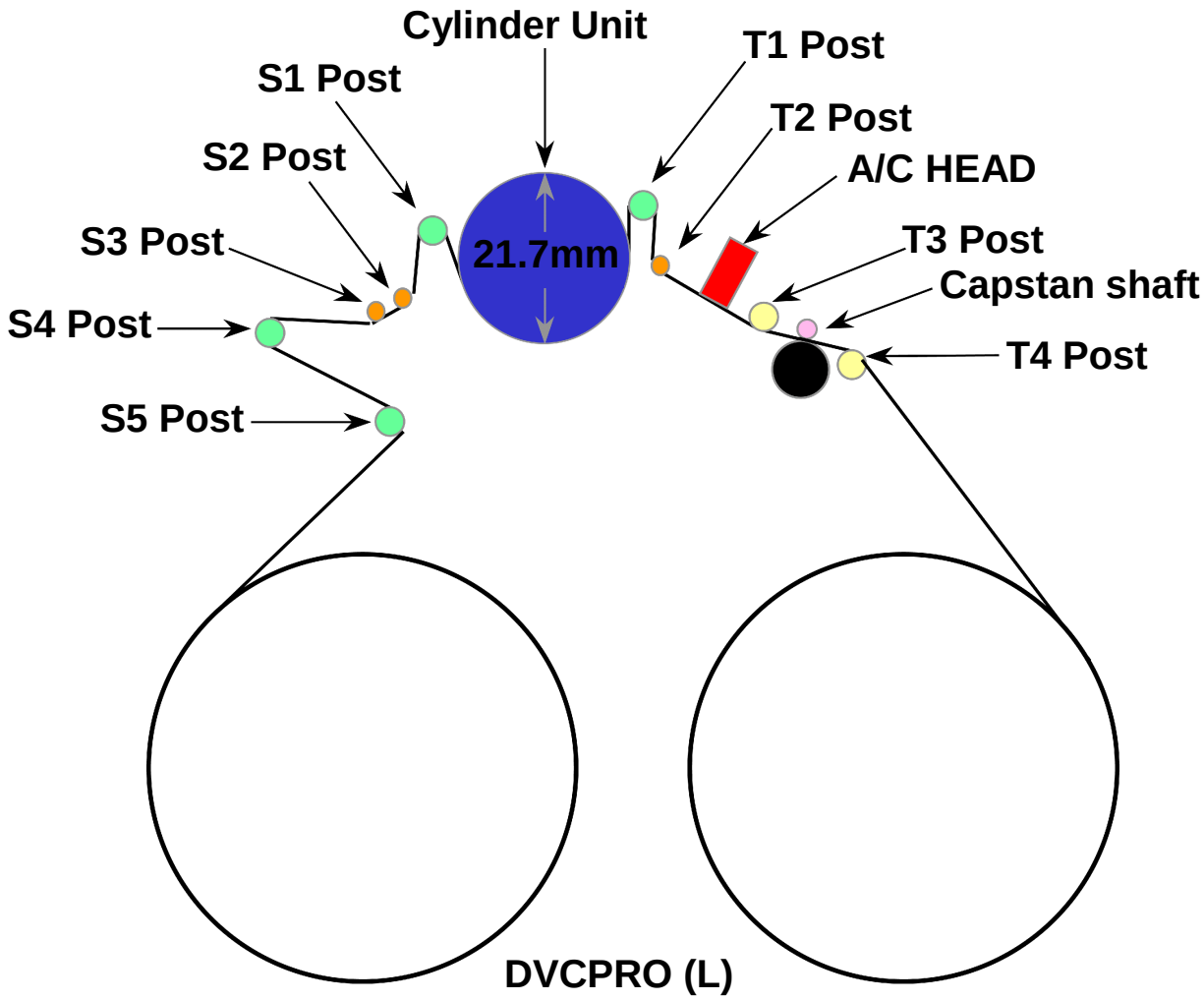
MECHANICAL ADJUSTMENT

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1. Name of Tape Transportation



:VFK1149 (Post Driver)

:VFK1151 (Nut Driver)

NAME	LIMIT
S1 Post	UPPER
S2 Post	FIXED
S3 Post	FIXED
S4 Post	LOWER
S5 Post	LOWER
T1 Post	UPPER
T2 Post	FIXED
T3 Post	LOWER
T4 Post	LOWER

2. Table of Test Point

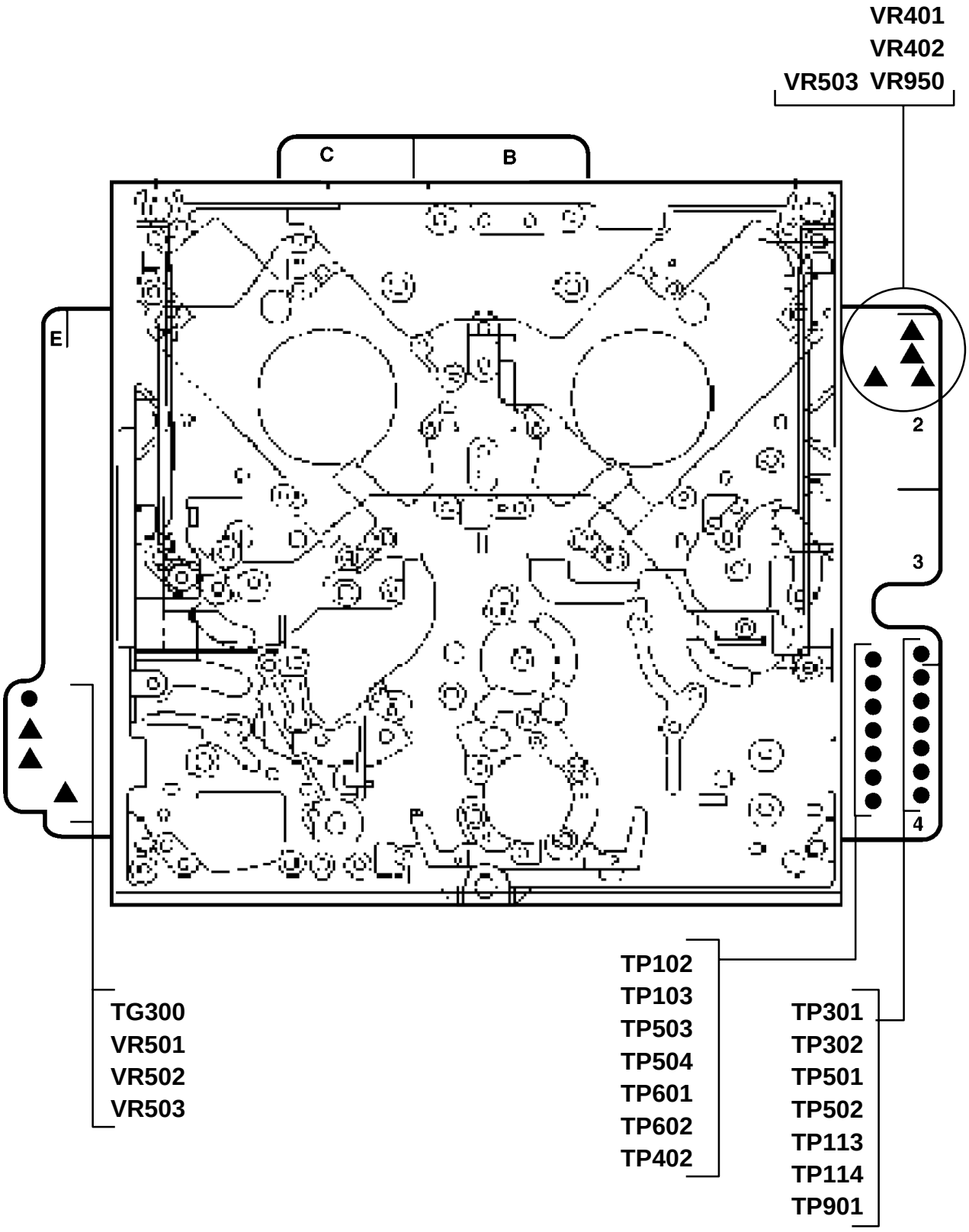
<Table of Test Point>

Name		AJ-HDC27AP
[Reel Torque Adjustment]		
S-REEL	Reel output Voltage	SERVO C.B.A : TP301
	Adjustment Point	SERVO C.B.A : VR502
T-REEL	Reel output Voltage	SERVO C.B.A : TP302
	Adjustment Point	SERVO C.B.A : VR501
GND		SERVO C.B.A : TG300
[Tension Arm Adjustment]		
TENSION		SERVO C.B.A : TP402
TENSION OFFSET		SERVO C.B.A : VR402
TENTION GAIN		SERVO C.B.A : VR401
[Photo Sensor Voltage Adjustment]		
S-REEL	Sensor Voltage	SERVO C.B.A : TP503
	Adjustment Point	SERVO C.B.A : VR503
T-REEL	Sensor Voltage	SERVO C.B.A : TP504
	Adjustment Point	SERVO C.B.A : VR504
[Tape Path, A/C Head Adjustment]		
R/P-ENV L13 (ENV A)		HEAD BUFF C.B.A : TP400
R/P-ENV R13 (ENV B)		HEAD BUFF C.B.A : TP401
R/P-ENV L24 (ENV C)		HEAD BUFF C.B.A : TP402
R/P-ENV R24 (ENV D)		HEAD BUFF C.B.A : TP403
R/P-HSW L13 (HSW A)		HEAD BUFF C.B.A : TP500
R/P-HSW R13 (HSW B)		HEAD BUFF C.B.A : TP501
R/P-HSW L24 (HSW C)		HEAD BUFF C.B.A : TP502
R/P-HSW R24 (HSW D)		HEAD BUFF C.B.A : TP503
CUE		CUE C.B.A : TP4
LIVE-CTL		SERVO C.B.A : TP901
FRP		SERVO C.B.A : TP502
[PG SHIFTER Adjustment]		
TSR		SERVO C.B.A : TP501
SPA L13		SERVO C.B.A : TP102
SPA L24		SERVO C.B.A : TP103
PG SHIFT		• Select the EVF on the Service Menu. (Refer to below table)
[LISTA Adjustment]		
ATF ERR L13		SERVO C.B.A : TP601
ATF ERR L24		SERVO C.B.A : TP602
TRG	R/P-HSW L13	SERVO C.B.A : TP113
	R/P-HSW R24	SERVO C.B.A : TP114
ATF GAIN		Select the EVR on the Service Menu. (Refer to following table)

SERVICE NENU Adjustment Mode>

Adjustment Name	ADJUSTMENT MODE	
	Adj. MODE (and Adjustment VR) • Select by Service Menu	**Remarks**
T-Reel Torque Adjustment	"T TORQUE"	When set the adjustment mode condition, press the select SW at the EJECT mode.
S-Reel Torque Adjustment	"S TORQUE"	Playback the alignment tape. Then keep pressing the select SW until the value on the EVR is updated.
PG Shifter Adjustment	"PG SHIF 100"	
LISTA Sensitivity Adjustment	"RP GAIN 100"	Test point TRG: HSW L13
LISTA Linearity Adjustment	"RP LIN 100"	

3. Test Point and VR Location



4. Mechanical Adjustment Procedures

4-1. Post Height Pre-adjustment

MODE	EJECT (POWER OFF)
TOOL	VFK1149 or VFK1149A (Post Driver) VFK1151 (2.5mm Nut Driver) VFK1154 (Post Height Fixture)

1. Confirm that the post is in unloading condition.
2. Confirm that the Reel Table is located at M-Cassette position.
3. Install the Mech. Neutral Plate and adjust each post height to lower limit as following figure.
4. Please refer to following table to see Post Driver to be used to adjust each post.

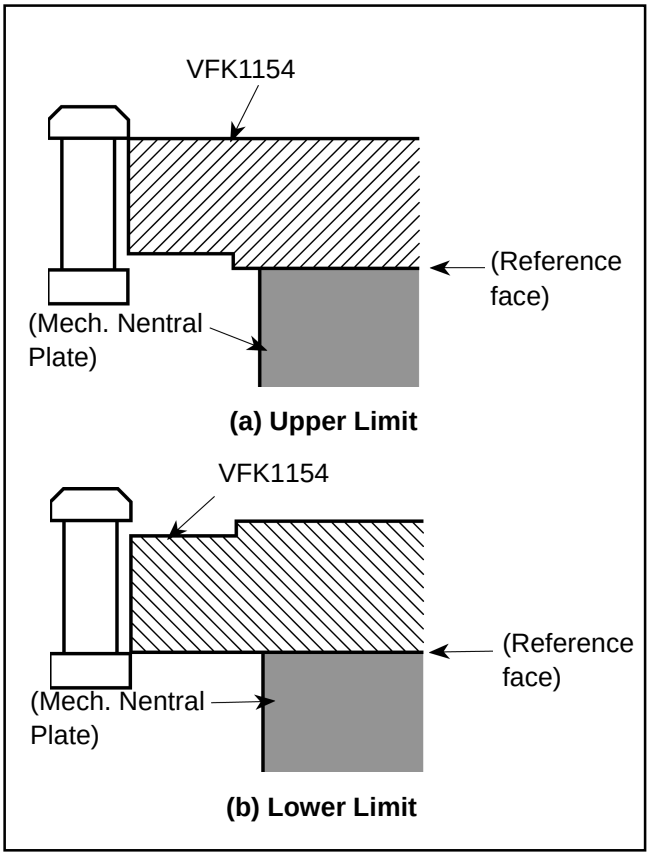


Figure 4-1

Post	Post Driver
S4 & S5 Post	VFK1149 or VFK1149A
T3 & T4 Post	VFK1151

Post	Limit
S4 & S5 Post	Lower Limit + 0.2 ± 0.05mm (Turn 1 round more counterclockwise from lower limit position.)
T3 & T4 Post	Lower Limit

4-2. Tension Adjustment Flowchart

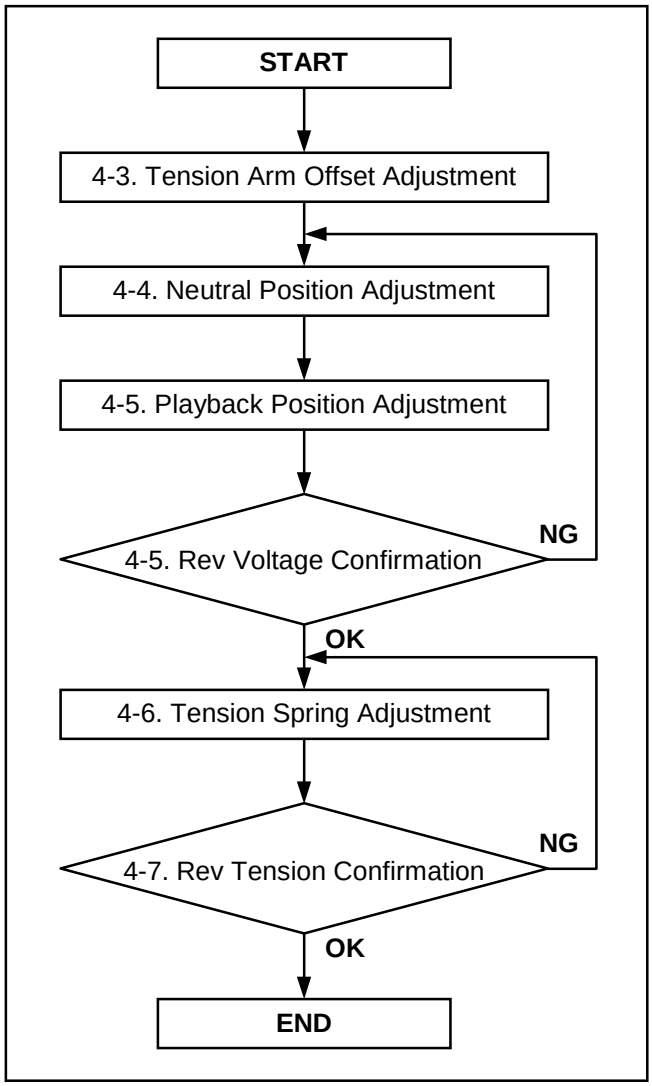


Figure 4-2

4-3. Tension Arm Offset Adjustment

SPEC	2.5 V ± 0.05 V
TEST POINT	Tension: TP402
ADJ.	Tension Offset : VR402
MODE	EJECT
TOOL	Digital Volt Meter

1. Confirm that the DC voltage at the test point is within the specification.
2. If it is out of spec, Adjust the VR so that the DC voltage is within the specification.

4-4. Tension Arm Neutral Position Adjustment

SPEC	2.5 V ± 0.1 V
TEST POINT	Tension: TP402
ADJ.	Base position of Tension Regulator Board
MODE	STOP
TOOL	Digital Volt Meter VFK1208 (black with hole)

NOTE:
Do not use magnetized tweezers and Screw Driver.
Do not touch the magnetize Screw Driver to S-Reel FG magnet portion, while adjusting the lever (D) portion.

1. Remove the Cassette Up Unit.
2. Set the VFK1208 (black with hole) at the position as shown in figure 4-4-2.
3. Connect the Digital Volt Meter to the test point.
4. Place the unit into the no tape loading mode.
5. Loosen the screw (A) and move the lever (D) with tweezers to adjust the sensor position so that the DC voltage at Test Point is within the specification.

<For No Tape Loading Procedure>

1. Open the “VTR SERVICE 2/3” page of Service Menu.
   (Refer to Sec 2. SERVICE INFORMATION.)
2. select the item “T TORQUE” or “S TORQUE” by turning the JOG Dial Button, and press the JOG Dial Button.
3. Start loading and rotate the reel simultaneously. Adjust at this condition.

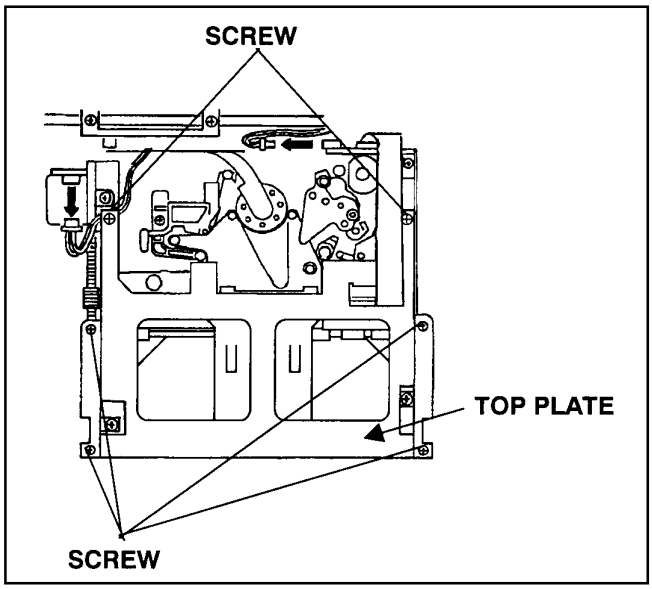


Figure 4-4-1

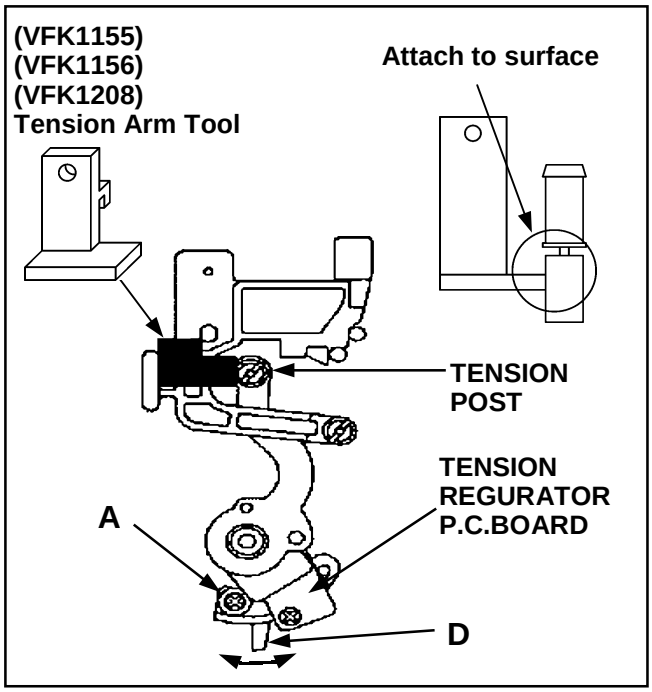


Figure 4-4-2

4-5. Tension Arm PLAY and REV Voltage Adjustment and Confirmation

SPEC	PLAY : 3.8 V ± 0.05 V REV : 1.2 V ± 0.3 V
TEST POINT	Tension: TP402
ADJ.	Tension Gain: VR401
MODE	STOP
TOOL	Digital Volt Meter VFK1156 (Black: for PLAY position) VFK1155 (Silver: for REV position)

1. Remove the Cassette Up Unit.
2. Set VFK1156 (black) at the position as shown in figure 4-4-2.
3. Place the unit into the no tape loading mode.
4. Confirm that the DC voltage at the test point is within the specification (PLAY).
5. If it is out of spec, adjust the VR so that the DC voltage is within the specification (PLAY).
6. Set VFK1156 (Silver) at the position as shown in figure 4-4-2.
7. Place the unit into the no tape loading mode.
8. Confirm that the DC voltage at the test point is within the specification.
9. If it is out of spec, perform the Tension Arm Position Adjustment again.

4-6. Tension Regulator Spring Adjustment

SPEC	110 ± 10 mN-m (11 ± 1gf)
TEST POINT	Tension: TP402
ADJ.	Tension Regulator Spring hook (B)
MODE	STOP
TOOL	VFK1188A (Dial Tension Gauge) Digital Volt Meter

1. Remove the Cassette Up Unit.
2. Place the VTR into no tape loading mode.
3. Push the tension post to the direction R by the tension gauge as shown in Figure 4-6 until the voltage at the test point becomes 3.8V (If means PLAY position).
4. Loosen the screw (C) and adjust the position of hook (B) so that the indication (tension) of gauge is within the specification.
   Then fighten the screw (C) and reconfirm tension is within the specification.

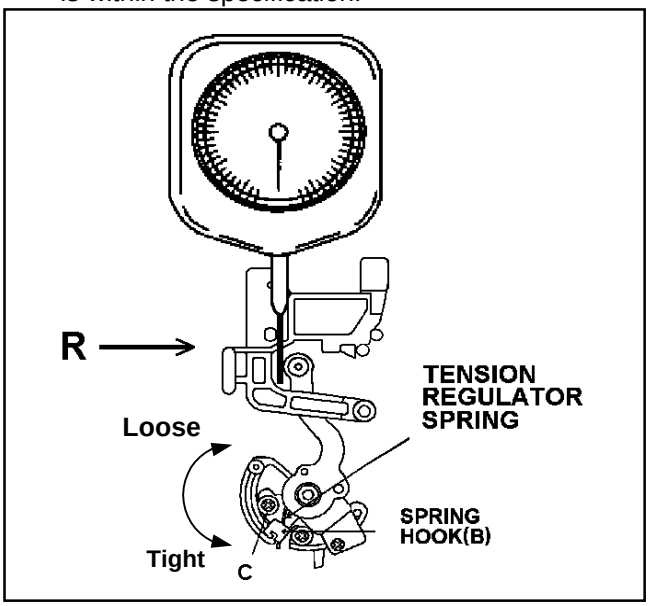


Figure 4-6

4-7. REV Tension Confirmation

SPEC	180mN ± 20mN (18gf ± 2gf)
TEST POINT	Tension: TP402
MODE	STOP
TOOL	VFK1188A (Dial Tension Gauge) Digital Volt Meter

1. Remove the Cassette Up Unit.
2. Place the VTR into no tape loading mode.
3. Push the tension post to the direction R by the tension gauge as shown in Figure 4-7 until the voltage at the test point becomes 1.2V (If means REV position).
4. Confirm that the indication (tension) of gauge is within the specification. If not, perform the Tension Spring Adjustment again.
5. After finish this adjustment, grew the screw (A), (B) and (C). The grew quantity at (B) is half of (A) and (C).
   Grew for the screw (A) and (C) should be as big as a grain of rice. For the screw (B), it showld be half of that.

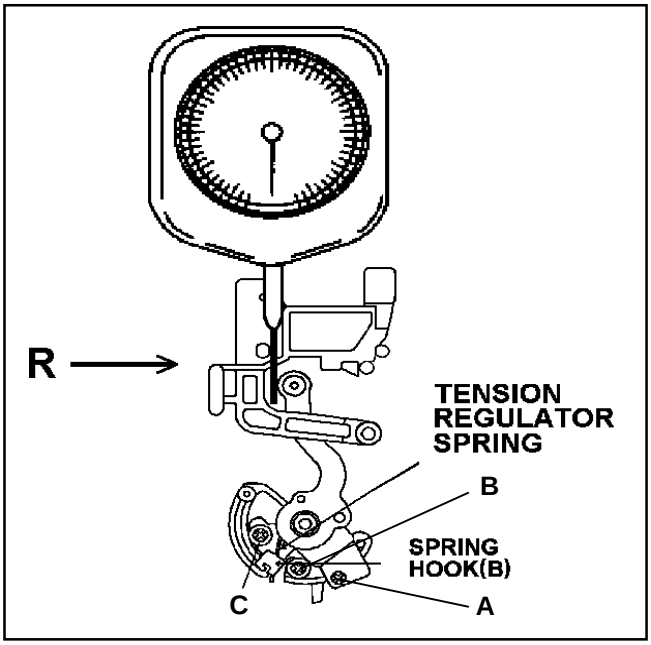


Figure 4-7

4-8. Tension Confirmation

SPEC	PLAY: 0.06N ± 0.01N (6gf ± 1gf) REV: 0.09N ± 0.02N (9gf ± 2gf)
MODE	PLAY, REV ×1
TAPE	63 min M size blank tape 123min. L size blank tape (For only L-Cassette playback models)
TOOL	VFK1145A (Tension Meter)

♦ Please calibrate Tension Meter before tension measurement by the following procedure.

<Calibration of Tension Meter>

1. Attach the 7 grams calibration plumb to DVCPRO tape. (It's tape and plumb are included in VFK1145.)
2. Set the above tape to the Tension Meter as shown in figure 4-8-1.
3. Pull up the tape as speed of 33mm/sec and adjust the Tension Meter so that the meter shows 7 grams (0.07N).

♦ To calibrate Tension Meter the tape must be pulled up as the direction of tape path of VTR as shown in figure 4-8-1.

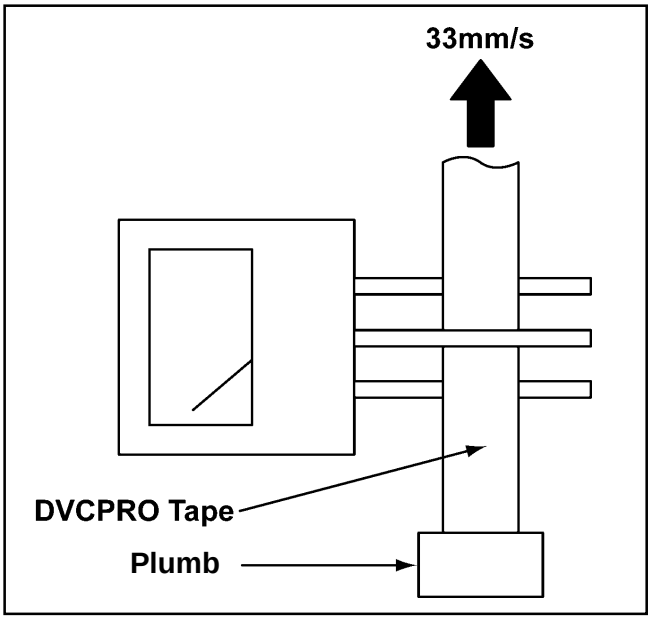


Figure 4-8-1

1. Play back the beginning portion of the tape.
2. Insert the tension meter between S3 post and S4 post as shown in figure 4-8-2.
3. Confirm that the tension value is within the specification.

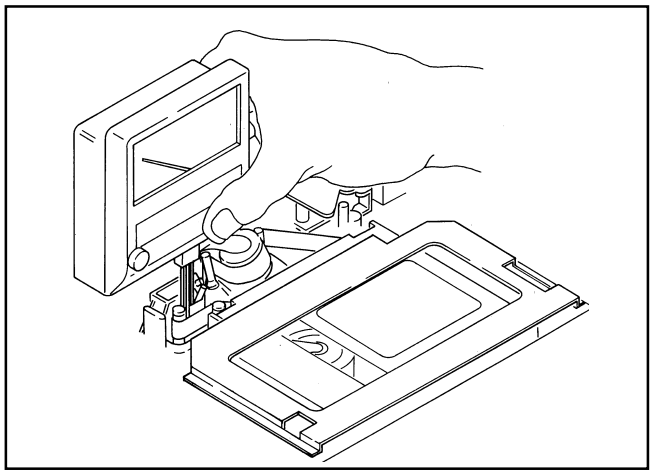


Figure 4-8-2

4. Place the unit in REV x1 mode. (To see how to set REV x1 mode, refer to item "4-20. REV (-1) Mode Setting Procedure".
5. Insert the tension meter between S4 post and S5 post as shown in figure 4-8-3. (Direction is reverse)
6. Confirm that the tension value is within the specification. (Read the meter from rear side as shown in figure 4-8-3.)
7. If it is out of specification, please perform the Tension Arm Adjustment.

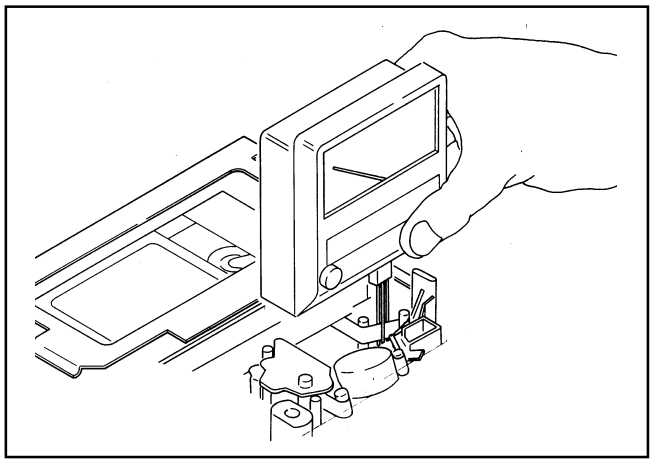


Figure 4-8-3

NOTE :
Play attention not to give some tape damage.

4-9. Photo Sensor Voltage Adjustment

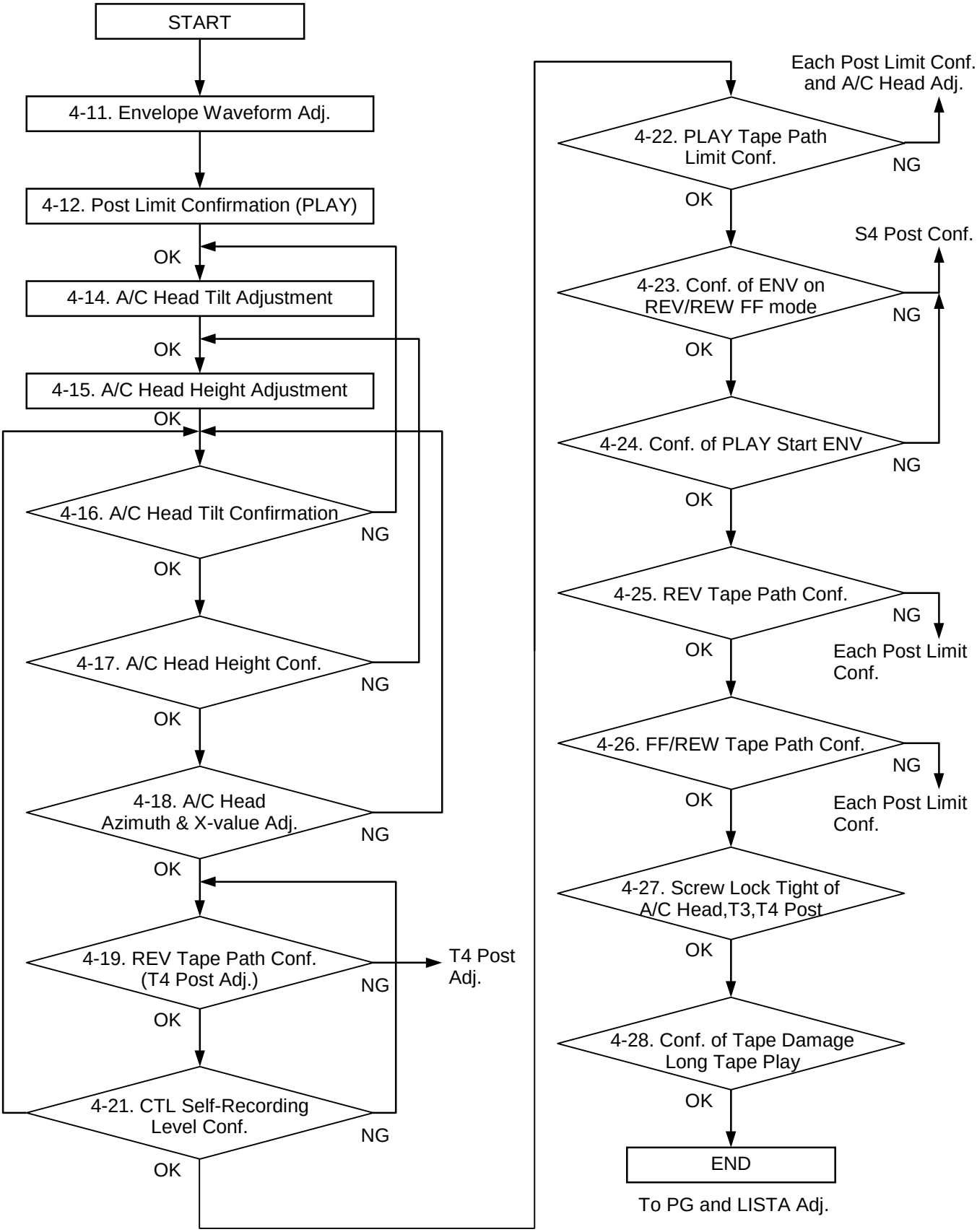
SPEC	3.2 VDC ± 0.8 VDC
TEST POINT	S-Reel: TP301 T-Reel: TP302
ADJ.	VR503: S-Reel VR501: T-Reel
MODE	STOP
TAPE	VFK1423 (Tape Beg./End M Cassette) VFK1369 (Tape Beg./End L Cassette)
M. EQ	Oscilloscope

1. Insert the VFK1423 or VFK1369 (For only L-Cassette playback models) and measure the voltage at the test point.
2. Adjust the VR or Dip SW so that the A portion of DC voltage is within the specification as shown in figure 4-9.



Figure 4-9

4-10.Tape Path Adjustment Procedure



4-11. Envelope Waveform Adjustment

SPEC	V1/Vmax, V2/Vmax, V3/Vmax ≥ 0.8
TEST POINT	TP400 (R/P-ENV L13): HEAD BUFF TP401 (R/P-ENV R13): HEAD BUFF TP500 (R/P-HSW L13): HEAD BUFF TP401 (R/P-HSW R13): HEAD BUFF
ADJ.	S1, T1 Post Height
MODE	PLAY (ATF)
TAPE	: VFM3580KM or VFM3580KL
M.EQ	Oscilloscope
TOOL	VFK1149 or VFK1149A (Post Driver) VFK1185 (BER COUNTER) VFK1158A (BER COUNTER CABLE)

< To confirm the ENV Lch >
Connect the BER COUNTER CABLE to P4 connector on RF P.C.Board.

< To confirm the ENV Rch >
Connect the BER COUNTER CABLE to P5 connector on RF P.C.Board.

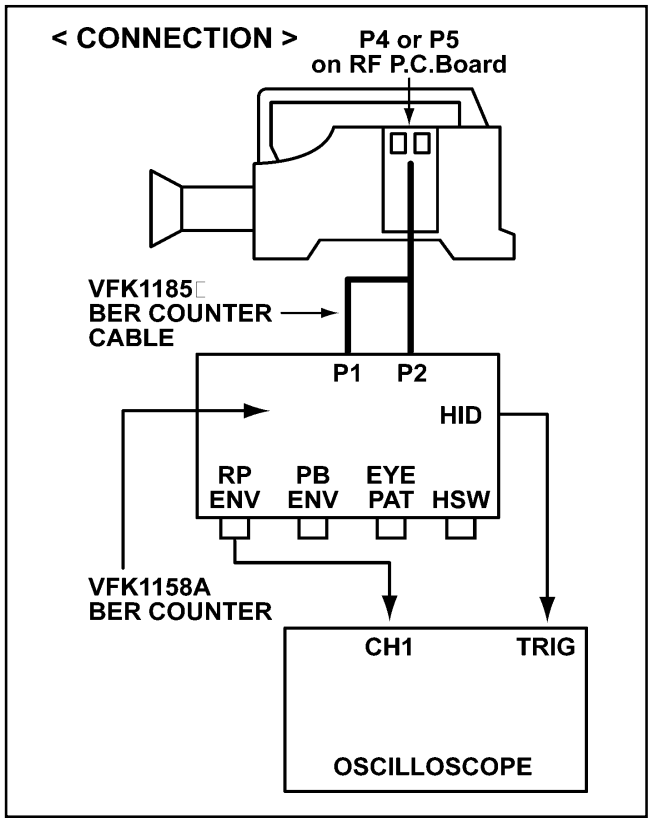


Figure 4-11-1

[Adjustment Procedure]

1. Adjust both channels envelope by connecting the test point Lch and Rch alternately.
2. Playback the alignment tape.
3. Adjust S1 and T1 post height so that the envelope signal is within the specification.
4. To adjust the S1 or T1 posts, at first raise the post height. Then the envelope at the entrance or exit side becomes small. Then down the post hight until envelope becomes flat.
5. As the order of adjustment, adjust T1 post to make it flat at exit side of envelope first and then adjust S1 post.
6. After finish this adjustment, unload the tape and load the tape again, then confirm the shape of Envelope waveform does not change.

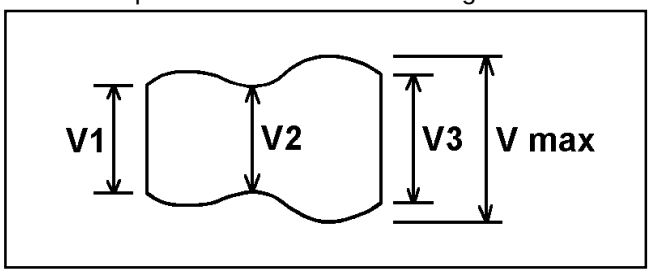


Figure 4-11-2

4-12. Post Limit Confirmation (PLAY)

SPEC	Post limit is shown in the following table. Curl does not appear on tape edge
MODE	PLAY
TAPE	Blank tape
TOOL	VFK1149 or VFK1149A (Post Driver) VFK1151 (Nut Driver)

1. Confirm that the tape path limit meets specification in following table. If not, adjust it.
2. Confirm that the D, E and F condition do not appear on the tape as shown in figure.

Post	Limit	Adjustment Method
S5	Lower limit or Free	Refer to Post Height Pre-Adj.
S4	Lower Limit	
S1	Upper Limit	Envelope waveform Adj.
T1	Upper Limit	
T3	Lower Limit	Post Height Pre-Adj.
T4	Upper, Free or Lower limit	

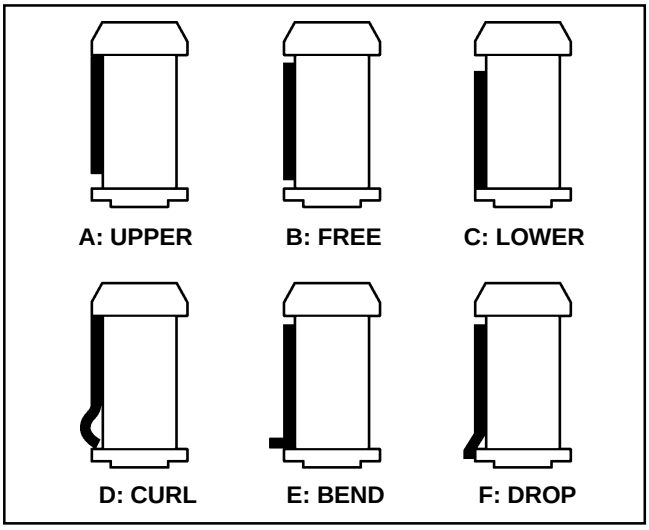


Figure 4-12

4-13. A/C Head Adjustment

Adjustment item	SCREW	Adjustment Method	Torque
Tilt adjustment	A	①. Adjust screw A after loosen screw G. Tighten direction : Decrease Cue level Loosen direction : Increase Cue level ②. Tighten screw G after finish adjustment screw A. (refer to following item “Azimuth adjustment & fix”)	None
Azimuth adjustment	F	①. Phase is adjusted by screw F after loosen screw G ②. Tighten screw G after finish adjustment screw F. (refer to below item “Azimuth adjustment & fix”)	None
Azimuth adjustment & fix	G	Screw (G) must be always tightened during adjustment except Tilt and Azimuth Adjustment.	10cN-m (1.0Kg-cm)
Height adjustment	B	Tighten direction : In case of increase CTL, when A/C Head Press down. Loosen direction : In case of increase CTL, when A/C Head lift up **NOTE : Please refer to figure 3-13-3 for the portion to lift up and press down A/C Head.**	None
Fix height	H	After height adjustment, tighten the screw (H) to fix height of A/C Head. Normally the CUE level is decreased, when the screw (H) is tightened. In this case, loosen the screw (H) 10 to 15 degree from the position tightened to keep the maximum CUE level.	19.6cN-m (2.0Kg-cm)
X-value adjustment	C, D	①. Adjust X-value at Hole (E) by VFK0357, then tighten the screw (C) and (D) to fix A/C Head horizontal position. ②. Hit gently at the portion of A/C Head Top Plate as shown in figure 3-13-4 to confirm the phase shift.	24.6cN-m (2.5Kg-cm)

SCREW	Tool for adjustment
A	VFK1178 (0.89mm Hex Driver)
B	VFK1150 (5.5mm Nut Driver)
F	VFK1148 (1.5mm Hex Driver)
C, D, G	VFK1209A (Torque Driver), VFK1148 (1.5mm Hex Driver) VFK0912 or 1375 (1.5mm Post Axis Driver)
H	VFK1190 (1.5mm L type of Hex Wrench)

1. For Tilt and Azimuth adjustment, loosen the screw (G) first and tighten the screw (G) after finish adjustment. And if need to turn the screw (A) and (F) too much for adjustment, tighten screw (A), (F) and (G) alternately.

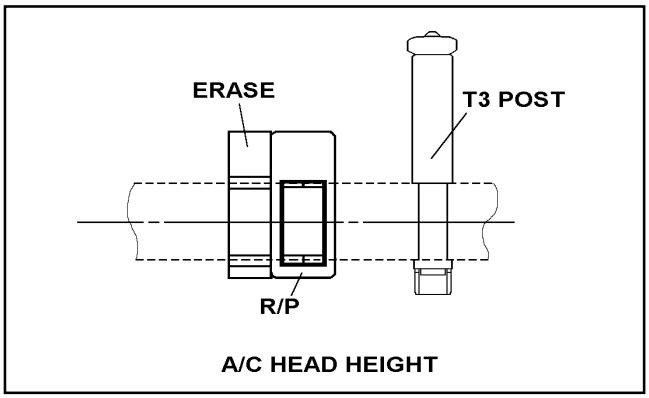


Figure 4-13-1

2. Perform the Height and X-value adjustment under the screw (G) tightened completely.
3. Be careful the tape damage at T3 Post, when adjust tilt of A/C Head. (refer to figure 4-13-1)

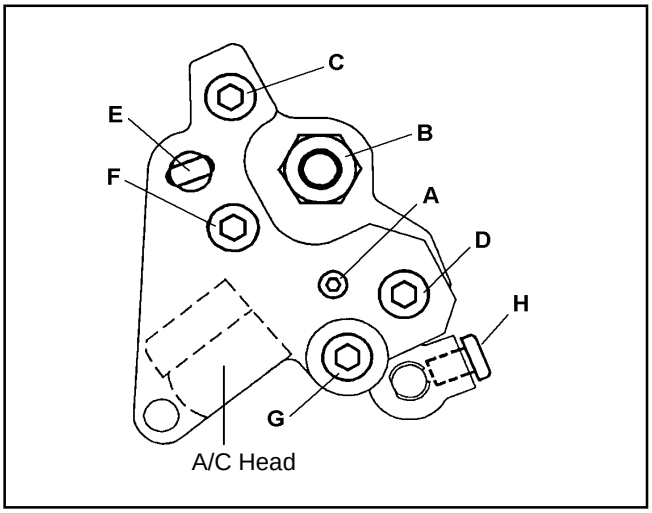


Figure 4-13-2

Confirm the screw (A) isn't loose, before perform A/C Head Tilt adjustment. The screw (A) should be always touch to top of A/C Head.

4. When the height of A/C Head is adjusted by the Nut (B), the screw (H) should be loosen first. And after height adjustment finished, tighten the screw (H) lightly.

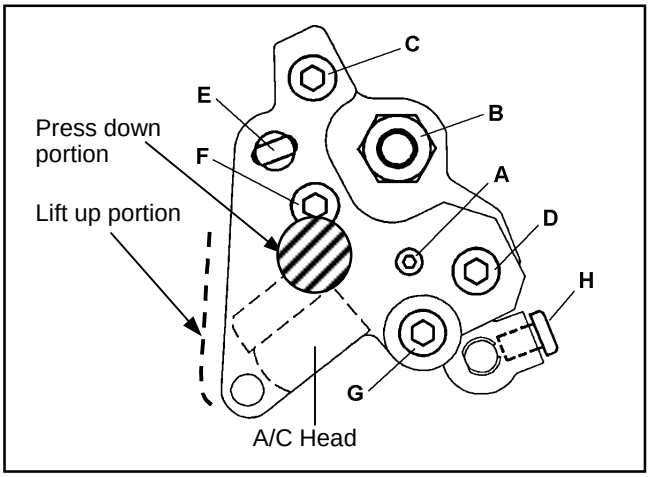


Figure 4-13-3

5. After finish X value adjustment, hit the portion (L) lightly and confirm the specification of X-value.
6. Each adjustment of A/C Head should be finished at the condition of tightening the each adjustment screw. And hit the portion (L) lightly to release the distortion of A/C Head plate.

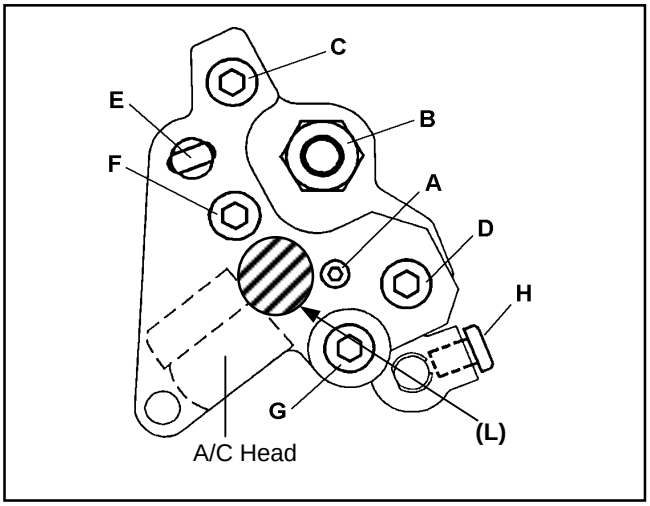


Figure 4-13-4

4-14. A/C Head Tilt Adjustment

SPEC	Curl does not appear on tape edge. Lower limit at T3 post
ADJ.	SCREW A, G (A/C Head)
MODE	PLAY
TAPE	Blank tape (For the long time play models, long time recorded tape should be used)
TOOL	VFK1148, VFK1178 (Hex Driver)

1. Play back the tape and adjust the screw (A) for adjustment of A/C Head tilt so that the tape path has lower limit without curl at T3 post.
2. For adjustment, loosen the screw (G) and make curl on tape at lower flange of T3 post by loosening screw (A). And tighten the screw (A) accordingly to find the point of curl disappeared. After finish adjustment for screw (A), tighten the screw (G) with 10cN-m (1.0Kg/cm) of torque.

NOTE :

1. **In case of turn clockwise the screw (A).**
   → Tape goes up at T3 post.
   In case of turn counter-clockwise the screw (A).
   → Tape goes down at T3 post.
2. **When the screw (A) adjustment is finished, screw adjustment should be finished in tightening direction. And confirm that the screw (A) isn't loose.**
3. **Adjustment and confirmation should be performed alternately for each A/C head adjustment (Azimuth and Height).**

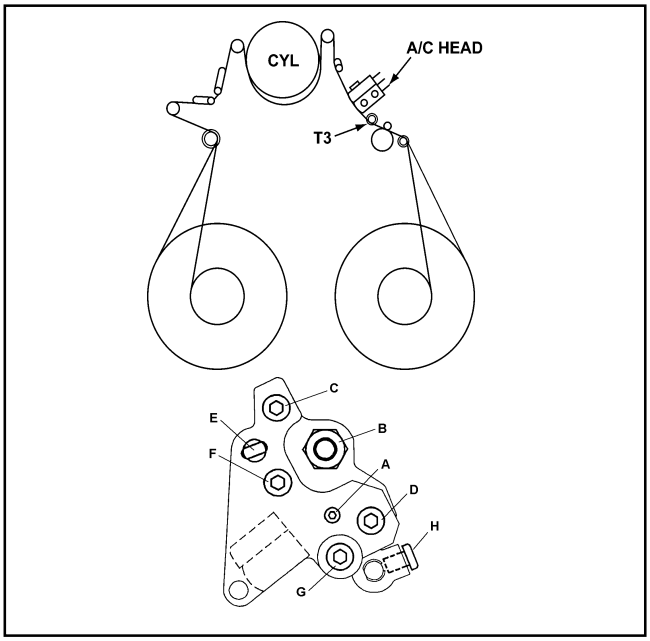


Figure 4-14

4-15. A/C Head Height Adjustment

SPEC	C1, C2 ≥ 1.6V
TEST POINT	CUE AUDIO: TP4 CTL: TP901
ADJ.	SCREW B, H (A/C Head)
MODE	PLAY
TAPE	VFM3580KM or VFM3580KL (14 to 22min)
TOOL	VFK1150 (Nut Driver) VFK1190 (Hex Wrench)

1. Press and Lift up A/C Head lightly as indicated in following figure, then confirm that the CTL and CUE output level is within the specification.
2. If it is out of spec., loosen the screw H and adjust the screw B until Cue output is maximized.
3. Confirmation of the level have to be done after the screw (H) is tighten completely. (refer to A/C Head Adjustment Method)
4. A/C head height adjustment should be done with Azimuth and X Value adjustment alternately.

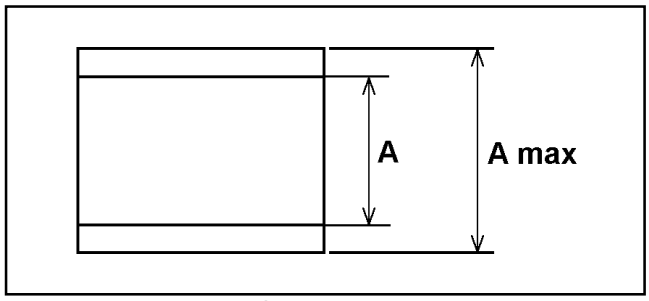


Figure 4-15-1

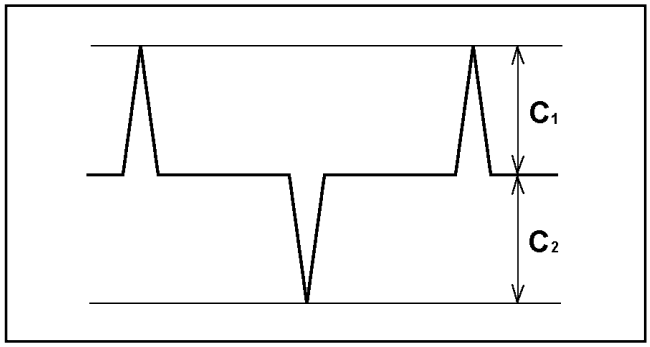


Figure 4-15-2

4-16.A/C Head Tilt Confirmation

SPEC	A/Amax ≥ 0.8
TEST POINT	CUE AUDIO: TP4
ADJ.	SCREW A, G (A/C Head)
MODE	PLAY
TAPE	VFM3580KM or VFM3580KL (14 to 22min)
TOOL	VFK1178, VFK1148 (Hex Driver)

1. Playback the Alignment tape.
2. Confirm that the screw (G) and (H) are not loose.
3. Push the tension post the arrow (B) direction as shown in following figure without moving T2 post. And confirm that the CUE output level is within the specification.
4. If out of specification, loosen the screw (G) and adjust the screw (A) (refer to item “4-14 A/C Head tilt Adjustment”.)
5. After adjustment performed, confirm the tape path condition by following Post Limit Confirmation procedure (item 4-12).

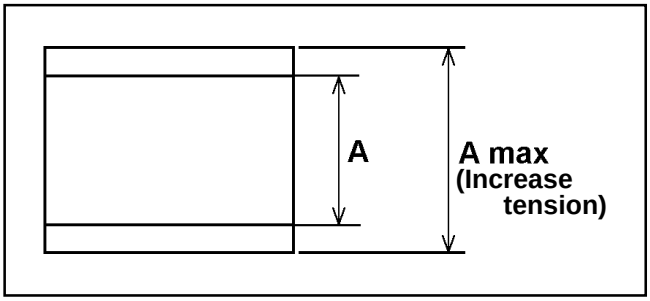


Figure 4-16-1

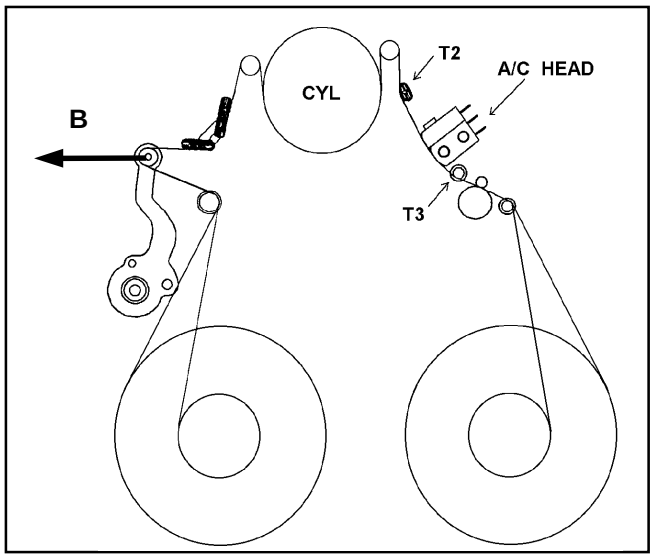


Figure 4-16-2

4-17. A/C Head Height Confirmation

SPEC	C1, C2 ≥ 1.6V
TEST POINT	CUE AUDIO: TP4 CTL: TP901
ADJ.	SCREW B, H (A/C Head)
MODE	PLAY
TAPE	VFM3580KM or VFM3580KL (14 to 22min)
TOOL	VFK1150 (Nut Driver) VFK1190 (Hex Wrench)

1. Press and Lift up A/C Head lightly as indicated in following figure, then confirm that the CTL and CUE output level is within the specification.
2. If it is out of spec., loosen the screw (H) and adjust the screw (B) until Cue output is maximized. (refer to item “4-15 A/C Head Height Adjustment”.)

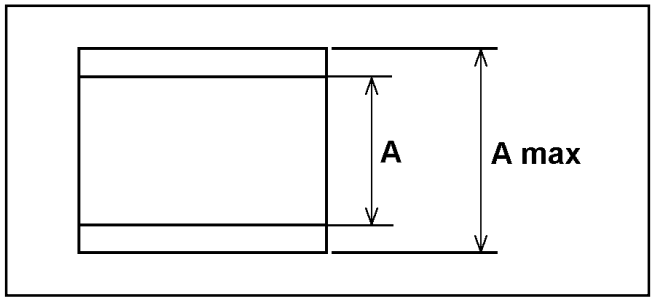


Figure 4-17-1

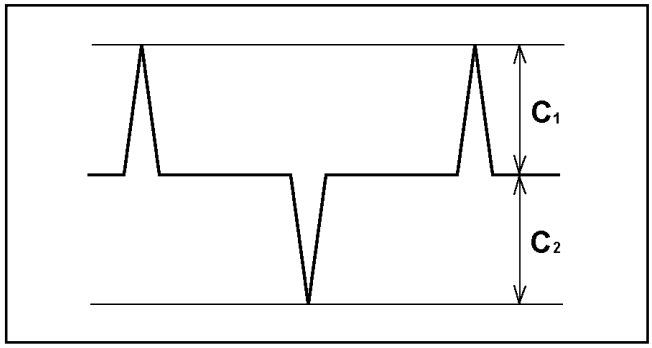
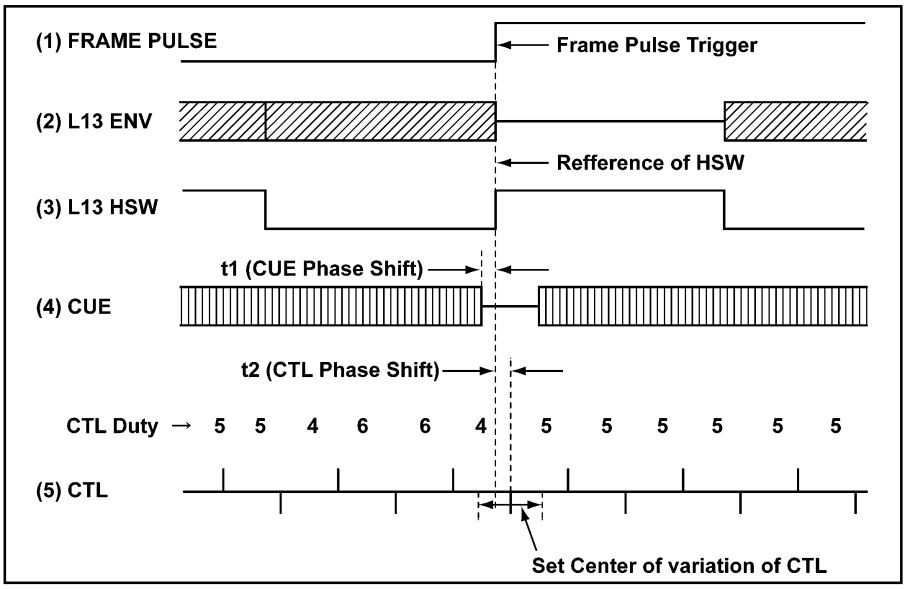
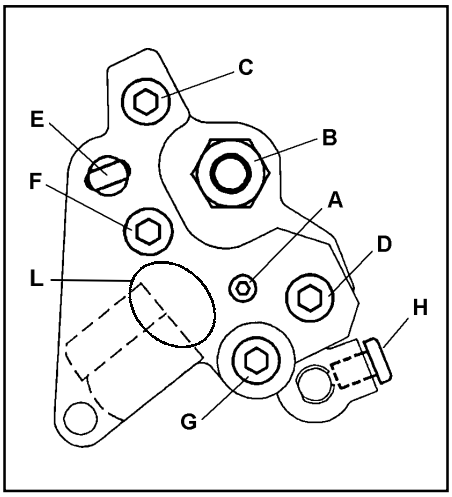


Figure 4-17-2

4-18. A/C Head Azimuth and X Value Adjustment

SPEC	As shown in figure below **-250μs ≤ t1, t2 ≤ +250μs**	**TEST POINT**	R/P-ENV L13: TP400		R/P-HSW L13: TP500
			R/P-ENV R13: TP401		R/P-HSW R13: TP501
			R/P-ENV L24: TP402		R/P-HSW L24: TP502
			R/P-ENV R24: TP403		R/P-HSW R24: TP503
			CUE: TP4	CTL: TP901	FRAME PULSE: TP502
ADJ.	A/C Head each screw (C,D,F,G) and hole (E)	**M. EQ**	Oscilloscope		
MODE	PLAY (Frame synchronized mode)	**TOOL**	VFK0357 (Eccentric Driver) VFK1148 (Hex Driver) VFK1209A (Torque Driver) VFK0912 or VFK1375 (Hex Bit)		
TAPE	VFM3582KM or VFM3582KL				
CTL Refe.	Falling edge				





1. Open the page “VTR SERVICE 2/3” on service menu and set “X VALUE SET” to ON.
2. Confirm that the phase of CUE and CTL are within the specification against Frame pulse trigger. If it is out of spec., perform adjustment as following procedure.
3. Confirm that the phase of CTL match with non-recorded portion of CUE (t2) in the phase. If not, adjust the screw (F) so that the phase is within the specification. (Refer to “4-13. A/C Head Adjustment Method”).
4. Confirm non-recorded portion of envelope, and select the HSW to meet with it (L ch of tape with non-recorded portion meets HSW high).
5. Adjust A/C Head Horizontal position so that the HSW and CTL trigger at the frame start is match in the phase (t1). The frame start CTL is located at the edge between 6: 4 and 5: 5 portion. To adjust A/C Head Horizontal position, loosen the screw (C) and (D), adjust the hole (E) by VFK0357. After adjustment tighten the screw (C) and (D) with 24.6cN-m (2.5Kg) torque. At this time adjust the phase simultaneously with Azimuth so that the CTL and CUE phase is kept.
6. Hit the top plate (portion L as shown in figure) of A/C Head lightly by a pointed end of Eccentric driver, and then confirm the phase is not shifted finally.

4-19. REV Tape Path Confirmation and Adjustment (T4 Post Height Adjustment)

SPEC	①. C1, C2 ≥ Cp1, Cp2×0.75 **NOTE:** **C1, C2: CTL output REV (-1) mode** **Cp1, Cp2: CTL output PLAY (+1) mode.** ②. Lower limit at T3 post on REV mode. ③. Curl does not appear on tape at T3 and T4 post.
TEST POINT	CTL: TP901
ADJ.	T4 post height
MODE	PLAY, REV-1X (SHTL)
TAPE	VFM3580KM or VFM3580KL
TOOL	VFK1150 (Nut Driver)

1. Place unit into REV X1 mode and confirm the CTL output level becomes more than 75% at play mode. Confirm the tape path limit becomes lower limit at T3 post and the tape does not have curl at T3 and T4 post.
2. If it is out of specification, adjust T4 post by following procedure.
3. Turn the Nut of T4 post clockwise or counterclockwise by the tape limit condition at T3 post. The maximum rotation angle should be 45 degree.
4. However if still it is out of specification, adjust T4 post height by following the item “4-1. Post Height Pre-adjustment procedure”.

[T4 Nut Adjustment Direction]

Direction	CTL Level	Condition of lower limit on T3 Post
Tighten	Increase	Tape touch to strong
Loosen	Decrease	Tape touch to weak

[Post limit]

Post	A	B	C	D	E	F
T3	NG	NG	OK	NG	NG	NG
T4	OK	OK	OK	NG	NG	NG

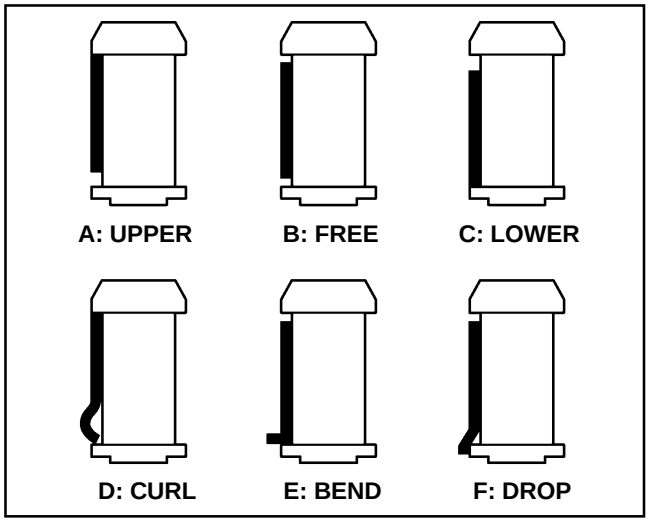


Figure 4-19-1

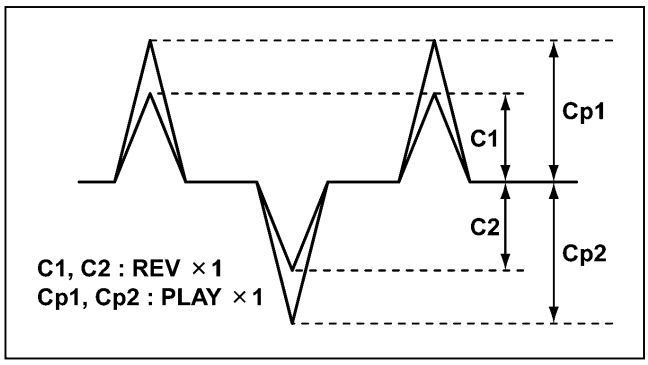


Figure 4-19-2

4-20. REV (-1) Mode Setting Procedure

1. Set the VTR to STILL mode by press “PLAY” button twice.
2. Press “PLAY” and “RESET” button simultaneously.

NOTE: Above setting only apply to item “REV Tape Pass Confimation and Adjustment (T4 post height adjustment)”. All models should be set to 25M mode with REV (-1) speed playback.

4-21. CTL Self Recording Level Confirmation

TEST POINT	CTL: TP901
ADJ.	T4 post height
SPEC.	C1, C2 ≥ 1.6 V: PLAY C1, C2 ≥ 1.2 V: REV X1
MODE	PLAY, REV×1
TAPE	Blank Tape
M.EQ	Oscilloscope

1. Please confirm that the each screws are fixed on A/C Head.
2. Place Unit into REC mode and playback the recorded portion.
3. Confirm that the CTL level is within the specification at PLAY and REV mode.
4. If CTL level is out of specification at PLAY mode, confirm the height of A/C Head (refer to item “3-17. A/C Head Height Confirmation”)
5. If CTL level is out of specification at REV mode, confirm the height of T4 Post (refer to item “3-19. REV Tape Path Confirmation and Adjustment”).

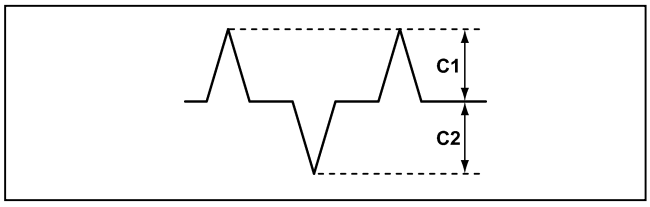


Figure 4-21

4-22.Play Tape Path Limit Confirmation

SPEC	Each post limit shown in figure below.
MODE	PLAY
TAPE	VFM3580KM/L or Blank Tape

Post Name	Tape limit (refer to figure)						Adjustment Point	Adjustment Item
	A	B	C	D	E	F		
S5 post	NG	OK	OK	NG	NG	NG	S4, S5 post	Post Height Pre-Adjustment
S4 (Tension) post	NG	NG	OK	NG	NG	NG		
S1 post	OK	NG	NG	NG	NG	NG	S1, T1 post	ENV Waveform Adjustment
T1 post	OK	NG	NG	NG	NG	NG		
T3 post	NG	NG	OK	NG	NG	NG	A/C Head tilt screw	A/C Head Tilt Adjustment
T4 post	OK	OK	OK	NG	NG	NG	T4 post	Post Height Pre-Adjustment

Table 4-22-1

1. Place unit into PLAY mode and confirm the each post limits is within the specification.
2. If out of specification, adjust the post height by following the each adjustment procedure (Refer to above table).

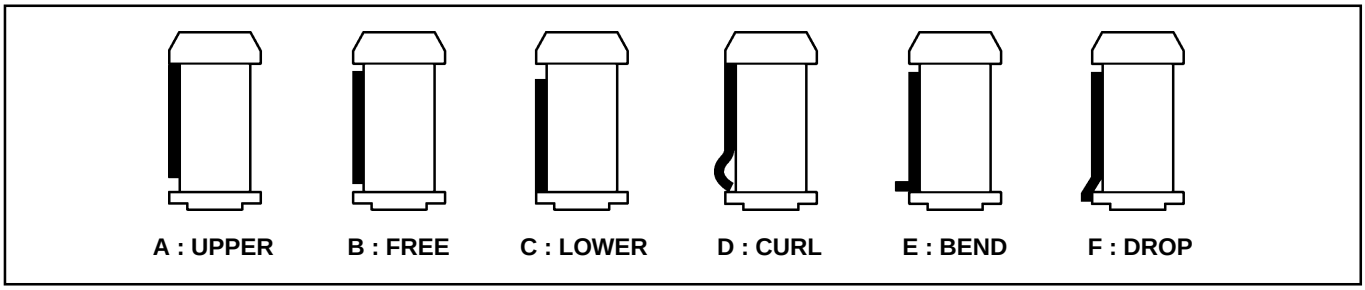


Figure 4-22-2

4-23. Confirmation of Envelope on REV, REW and FF mode

SPEC	See Figure 4-23	**M.EQ**	Oscilloscope
TEST POINT	See below	**TAPE**	VFM3580KM or VFM3580KL
MODE	REV, REW, FF		

1. Confirm that the Envelope waveform becomes in the specification at REV, REW and FF mode as following.
   - Waveform must be Diamond Style. (Figure 4-23)
   - All the peak level must be more than 90% of maximum level. $V/Vmax \geq 0.9$
2. If out of spec, adjust S4 post height. (refer to item "4-1.Post Height Pre-Adjustment")

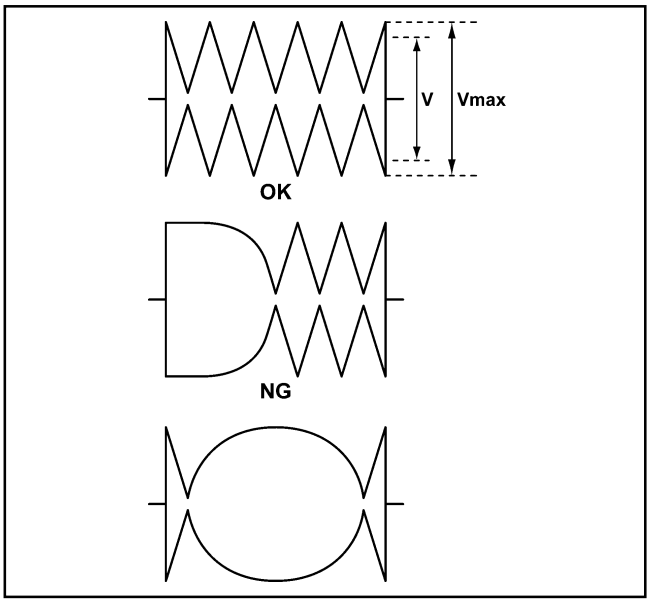


Figure 4-23

4-24. Confirmation of Play Start Envelope

SPEC	Envelope Waveform signal should be rising up immediately at PLAY mode.	
TEST POINT	TP400: R/P-ENV L13 TP401: R/P-ENV R13	TP402: R/P-ENV L24 TP403: R/P-ENV R24
MODE	REW/REV → PLAY FF→ Loading completion → PLAY	
TAPE	L Cassette (123min, Recorded tape) Tape beginning portion	
M.EQ	Oscilloscope	

This adjustment must be done after Envelope Waveform Adjustment.

1. Confirm that the envelope appears immediately, when the mode is changed from REW to PLAY, REV to PLAY, FF to PLAY, and Lording to PLAY mode.
2. If out of spec, adjust S4 post height. (refer to item “Post Height Pre-Adjustment”)

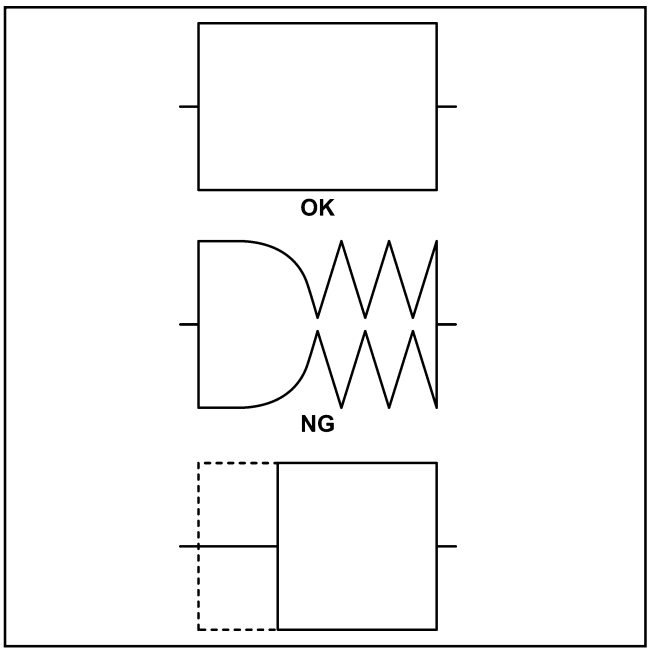


Figure 4-24

4-25. REV mode Tape Path Limit Confirmation

SPEC	Each post limit shown in below figure
MODE	REV
TAPE	VFM3580KM or VFM3580KL

Post Name	**Tape Limit (Refer to figure 4-25)**					
	A	**B**	**C**	**D**	**E**	**F**
S5 Post	OK	OK	OK	NG	NG	NG
S4 Post (Tension Post)	NG	OK	OK	NG	NG	NG
S1 Post	OK	NG	NG	NG	NG	NG
T1 Post	OK	OK	OK	NG	NG	NG
T3 Post	NG	NG	OK	NG	NG	NG
T4 Post	OK	OK	OK	NG	NG	NG

1. Place unit into REV mode and confirm the each post limits is within the specification.
2. If out of specification, adjust the post height by following the each adjustment procedure (Refer to Table 4-22 on item 4-22)

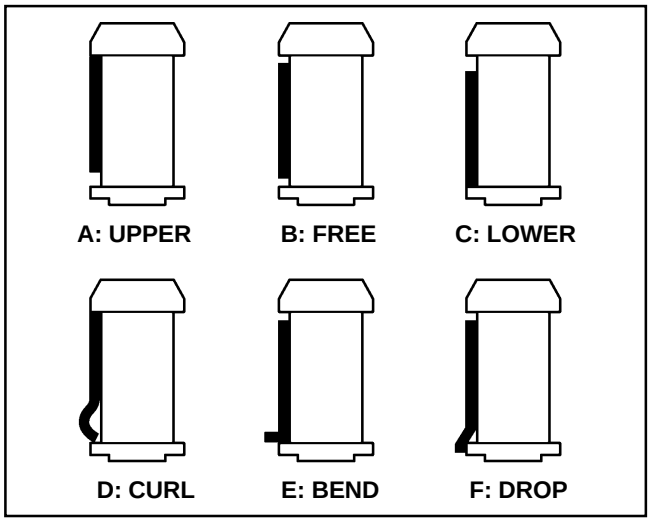


Figure 4-25

4-26. FF, REW mode Tape Path Limit Confirmation

SPEC	Each post limit shown in below figure
MODE	FF, REW
TAPE	VFM3580KM or VFM3580KL

Post Name	Tape Limit (Refer to figure 4-25)					
	A	**B**	**C**	**D**	**E**	**F**
S5 Post	OK	OK	OK	NG	NG	NG
S4 Post (Tension Post)	NG	OK	OK	NG	NG	NG
S1 Post	OK	NG	NG	NG	NG	NG
T1 Post	OK	OK	OK	NG	NG	NG
T3 Post	OK	OK	OK	NG	NG	NG
T4 Post	OK	OK	OK	NG	NG	NG

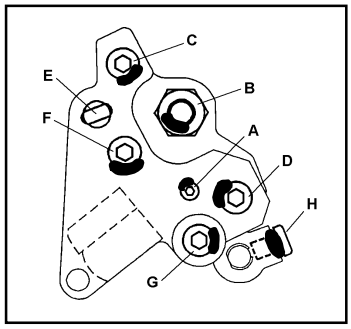
1. Place unit into FF and REW mode and confirm the each post limits is within the specification.
2. If out of specification, adjust the post height by following the each adjustment procedure (Refer to Table 4-22 on item 4-22)

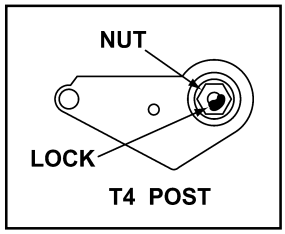
4-27. Screw Lock Tight of A/C Head and T3, T4 Post

<Screw Lock Tight of A/C Head>

	SCREW A	**OTHER SCREWS**
Lock Tight Grew Quantity	1/3 of the screw	1/3 of the screw

1. Fix the screw by the Lock Tight Grew after A/C Head Adjustment as shown in figure below.
2. Melt the grew before adjust each screws.





<Screw Lock Tight of T3 and T4 Post>

	SCREW A	**OTHER SCREWS**
Lock Tight Grew Quantity	1/4 of the screw	1/4 of the screw

1. Fix the Nut by the Lock Tight Grew after T4 Post Height Adjustment.
2. Melt the grew before perform adjustment.

4-28. Confirmation of Tape Damage for Long Tape Playback

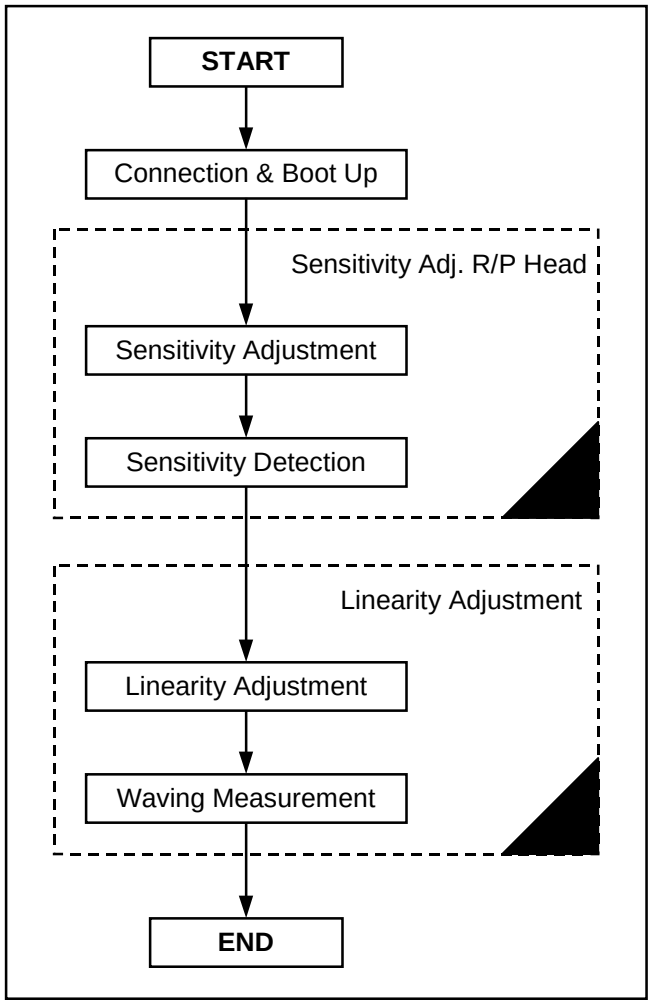
<Confirmation procedure>

Confirmation mode	**Specification**	**Tape Type**
PLAY	Tape damage does not occurred on tape at lower limit of T3 and T4 post.	HD (100M)
Repeat operation CUE←→REV mode (maximum speed at Pinch ON condition)		
<Tape> Long time L cassette (AJ-5P93LP : recorded tape) Tape end portion		

4-29. LISTA Adjustment Procedure

NOTE :

1. **Refer to the item "4-32. LISTA Sensitivity Adjustment & Detection" about procedure of the sensitivity adjustment and sensitivity detection.**
2. **Refer to the item "4-33. LISTA Linearity Adjustment & Waving Measurement" about procedure of the linearity adjustment.**



4-30. LISTA Connection and Boot Up

TEST POINT	ATF	ATF ERR L13: TP601 ATF ERR L24: TP602
	TRG	R/P-HSW L13: TP113 R/P-HSW L24: TP114
M. EQ.	PC (Personal Computer) (A/D board should be installed)	
TAPE	VFM3581KM or VFM3581KL (LISTA)	
TOOL	VFK1481B (LISTA Software), VFK1186 (LISTA Cable)	

1. Connect the LISTA cable to A/D Board in the PC.
2. Connect the clips of the LISTA cable to test point on the P.C.Board.

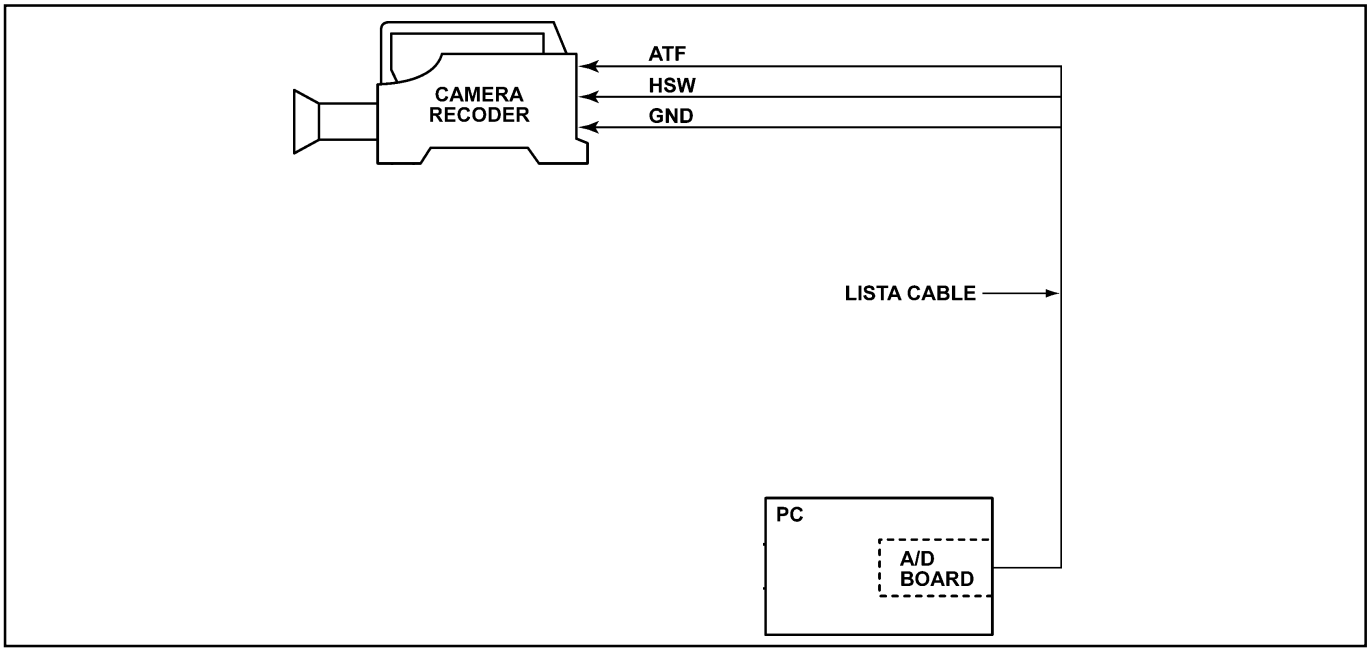


Figure 4-30

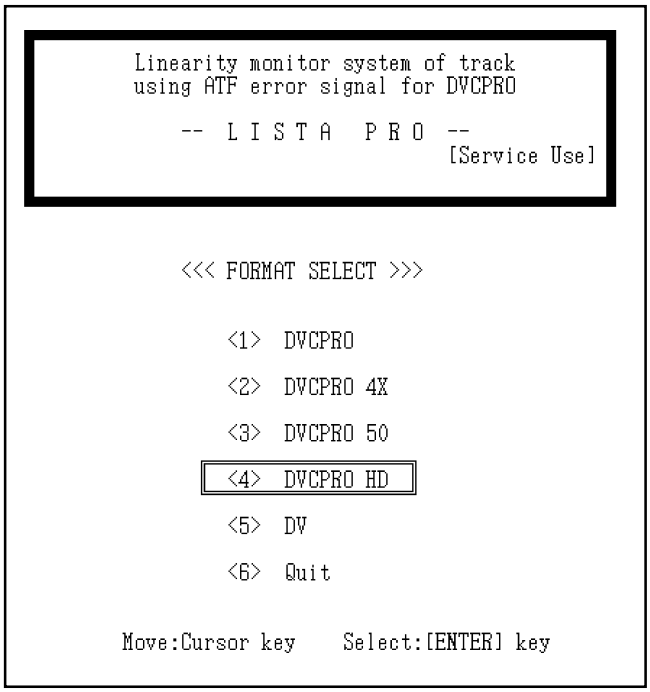
3. Boot Up the LISTA software on DOS mode.

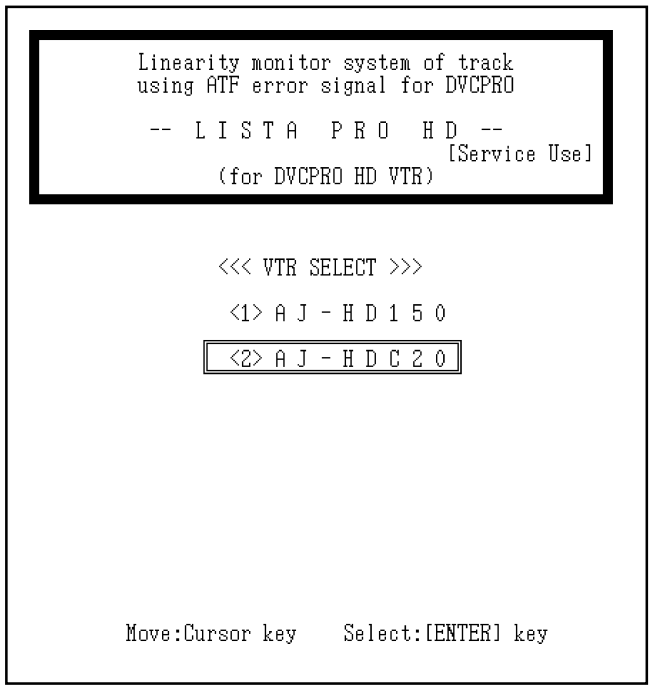
♦ How to install and boot Up ♦

Copy all files on the floppy disk (VFK1481B : LISTA Software) to created directly on PC (**i.e.;** C:¥LISTA).

Type **"LISTA"** and press **ENTER** key, then the LISTA software VFK1481B boot up.

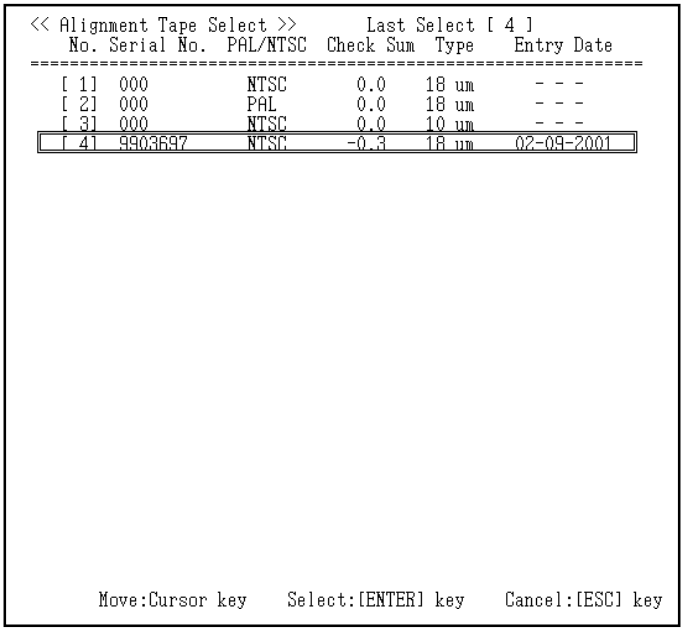
4. After boot up the LISTA software, <<< FORMAT SELECT >>> display appears. Select the "DVCPRO HD" format.
5. After select the format, **<<< VTR SELECT >>>** display appears, and select the "AJ-HDC27AP" model.



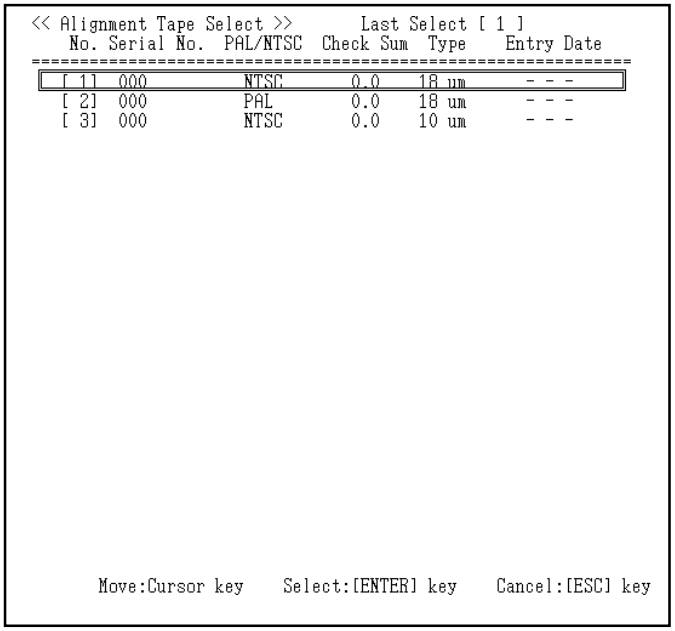


6. Next, select the Serial number of the Alignment tape on the screen. If LISTA software does not have alignment tape data registered, data entry is needed. Press the ESC key, then main menu is displayed on the screen. And select the item “<4> Alignment Tape” for entry the data on the attachment sheet, which is enclosed with alignment tape.
7. If LISTA software has data of alignment tape, select the serial number of Alignment tape, then message “ok?(y/n)” appears on the screen. And press “ Y ” or “ ENTER ” key, then LISTA main menu is displayed on screen.

<< In case, Alignment Tape data is registered already >>

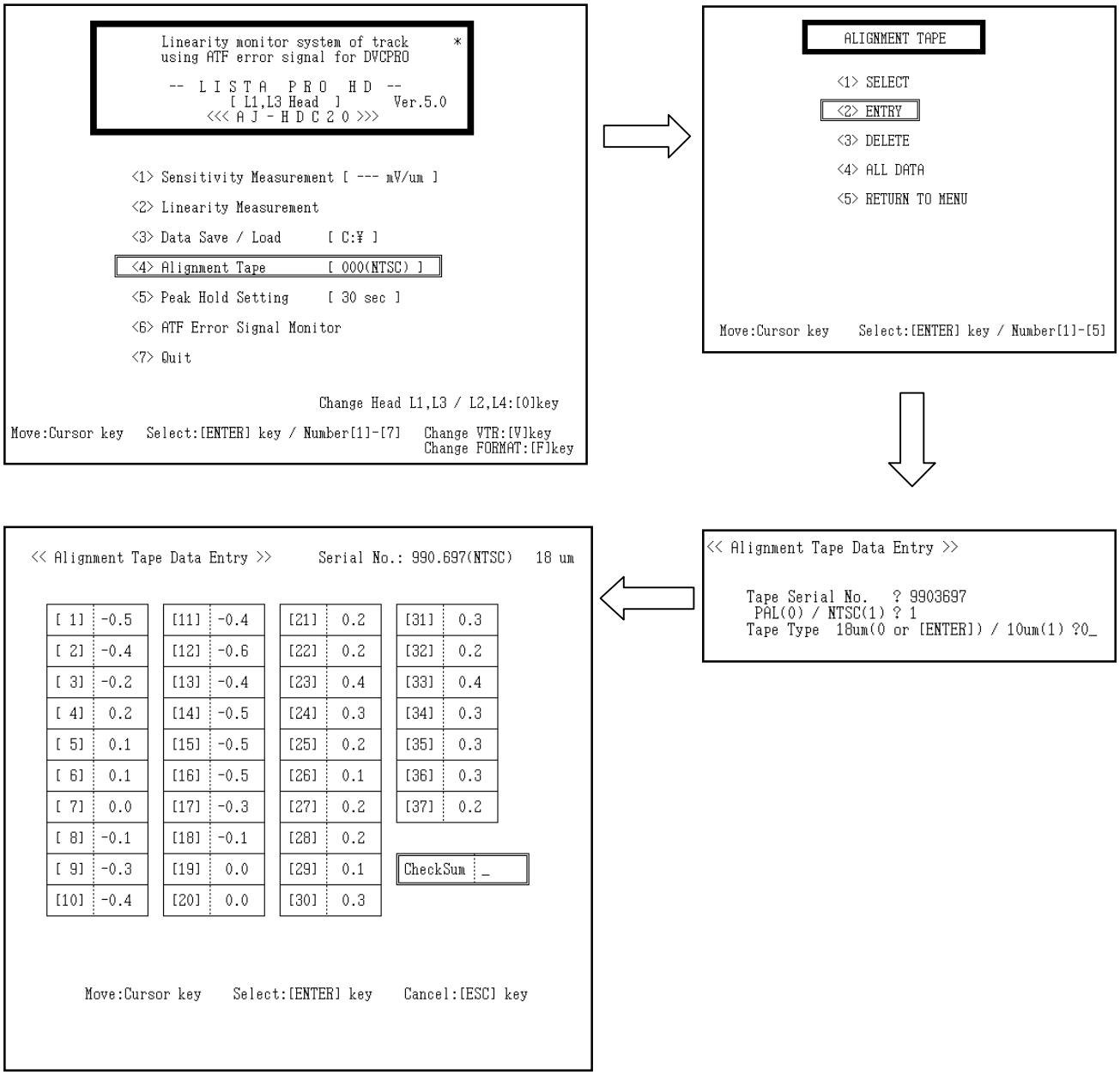


<< In case, Alignment Tape data is not registered>>



4-31. How to Entry the Attachment Data of Alignment Tape

1. Select the item “<4> Alignment Tape” on the LISTA main menu.
2. Select the item “<2> ENTRY” on the alignment menu.
3. After the screen of <<Alignment Tape Data Entry>>is displayed, first input the Serial Number of Alignment tape printed on the label. And input the number “0” or “1” to select the PAL/NTSC. And after that for entry the tape type, input to “0” for DVCPRO, DV input to “1” for DV.
4. After select the tape type, the frame for input the DATA and CHECK SUM appears on the screen. Input the numerical value on the data sheet, which are enclosed with alignment tape. If input the wrong number, the error message appears on the screen, then confirm the data on the sheet.
5. After entry the data, select “<1> SELECT” on the Alignment Tape Menu and select the serial number of the alignment tape.

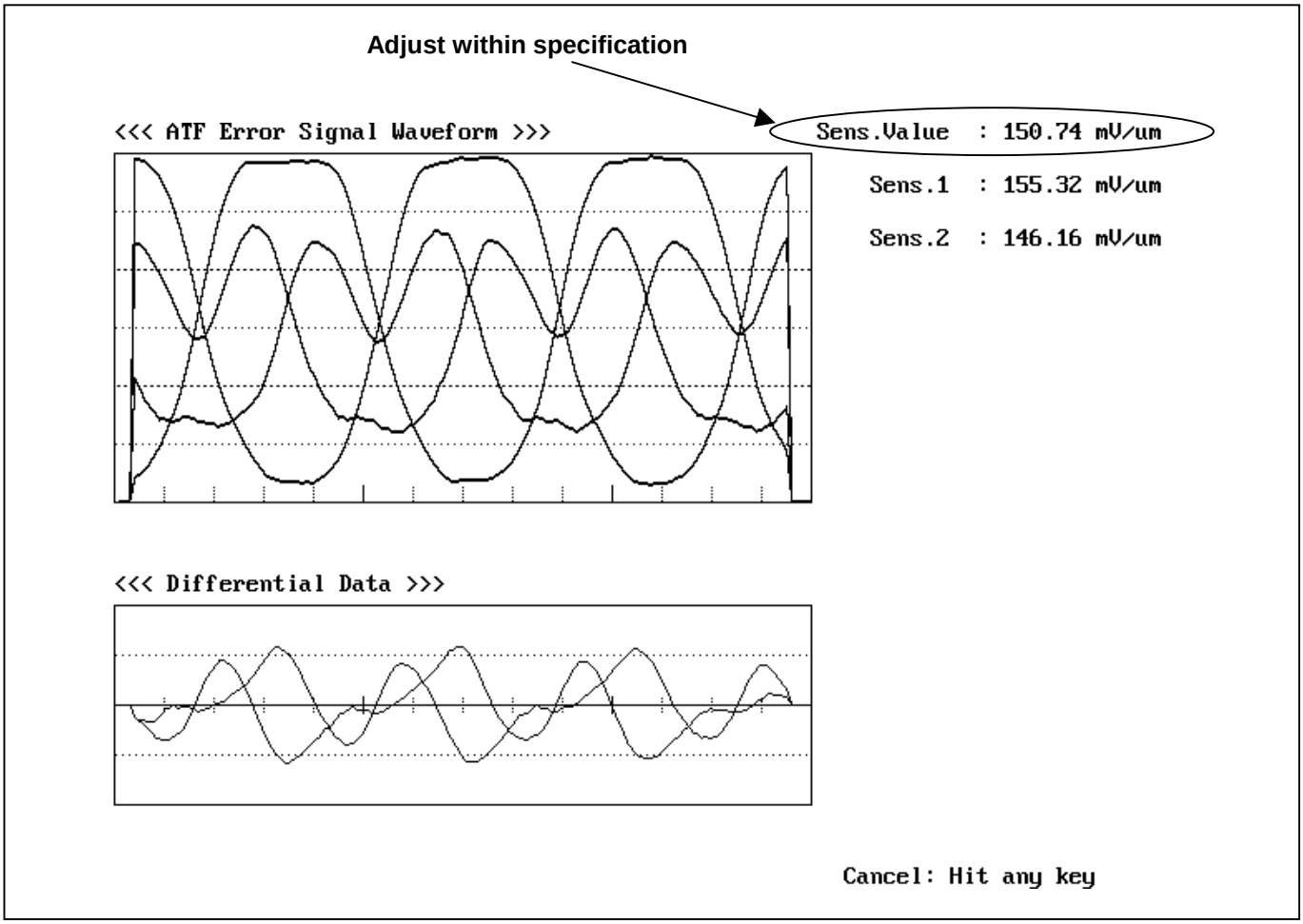


4-32. LISTA Sensitivity Adjustment and Sensitivity Detection

TEST POINT	ATF	ATF ERR L13: TP601 ATF ERR L24: TP602
	TRG	R/P-HSW L13: TP113 R/P-HSW L24: TP114
	GND	TG300
VTR MODE	PLAY	
ADJ. MODE	RPL GAIN 100	
ADJUST (ATF GAIN)	150 ± 15 mV/um	
TAPE	VFM3581KL (LISTA)	

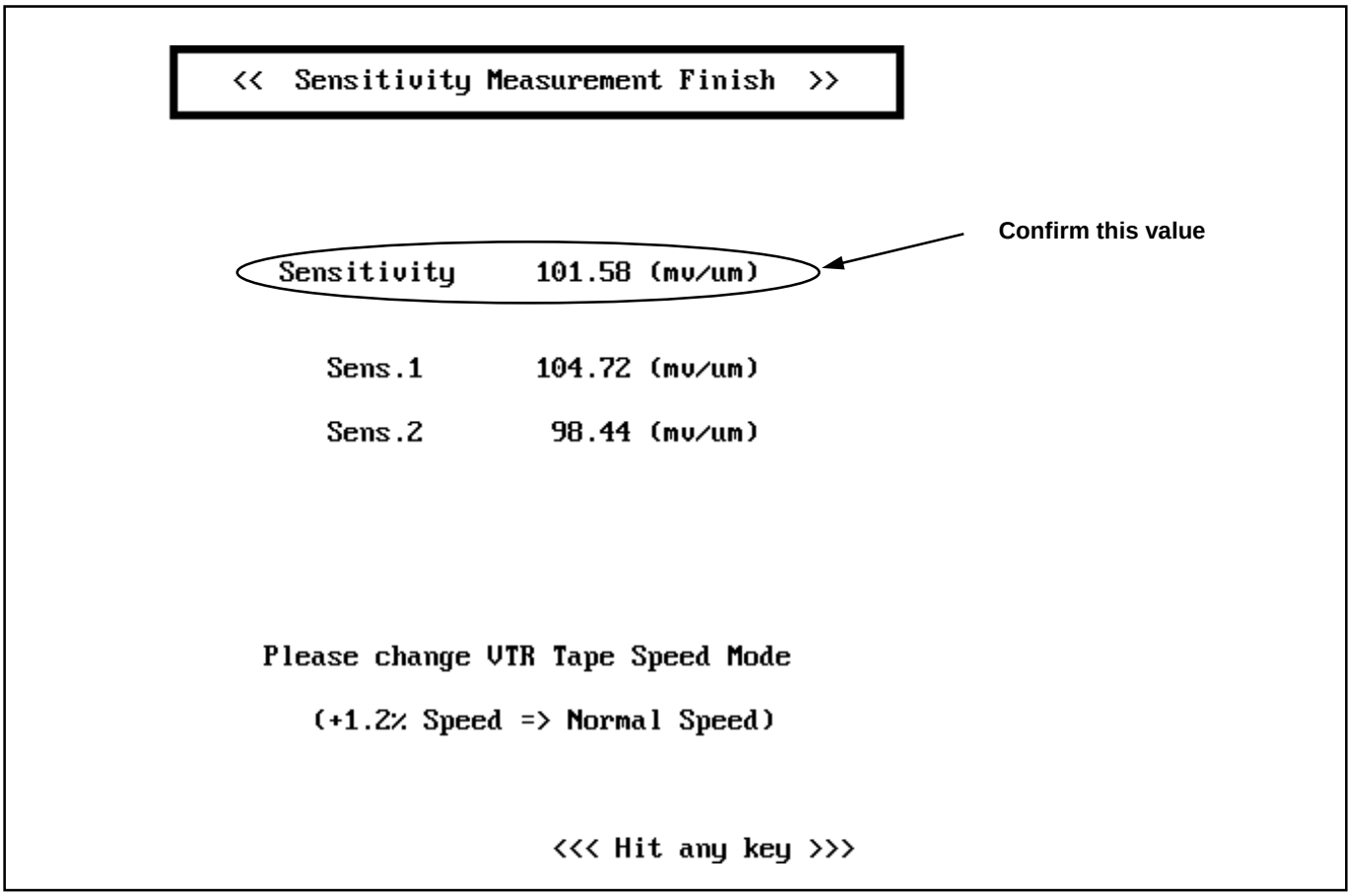
Sensitivity Adjustment Procedure

1. Connect the each clips of LISTA cable to the test point.
2. Set the adjustment mode according to adjustment heads.
   (Refer to [LISTA Adjustment Modes] of the “Table of Test Point”.)
3. Playback the LISTA Alignment Tape.
4. Select the item “<6> ATF Error Signal Monitor” on the LISTA main menu, and after message “1.2% Speed. . .” appears on the screen, press the Enter key, then sensitivity value and waveform appear on the screen as shown figure below.
5. Adjust RPL GAIN 100 in the VTR Service menu so that the “Sens. Value” on the upper right corner of the screen is within the specification.
6. After finish this adjustment, press the ESC key to return to the main menu.



Sensitivity Detection Procedures

1. Set the adjustment mode. (Refer to [LISTA Adjustment Modes] of the “Table of Test Point”.)
2. Playback the LISTA Alignment Tape.
3. Select the item “<1> Sensitivity Measurement” on the LISTA main menu, and then “1.2% Speed. . .” appears on the screen. Press the Enter key, and then start measurement of the sensitivity value.
4. Confirm the sensitivity value is within the specification, when the message <<Sensitivity Measurement Finish>> and “Sensitivity = Sensitivity Value” are displayed on screen.
5. If it is out of specification, repeat the step item 3 and 4.
6. If still out of specification, execute the “Sensitivity Adjustment” again.



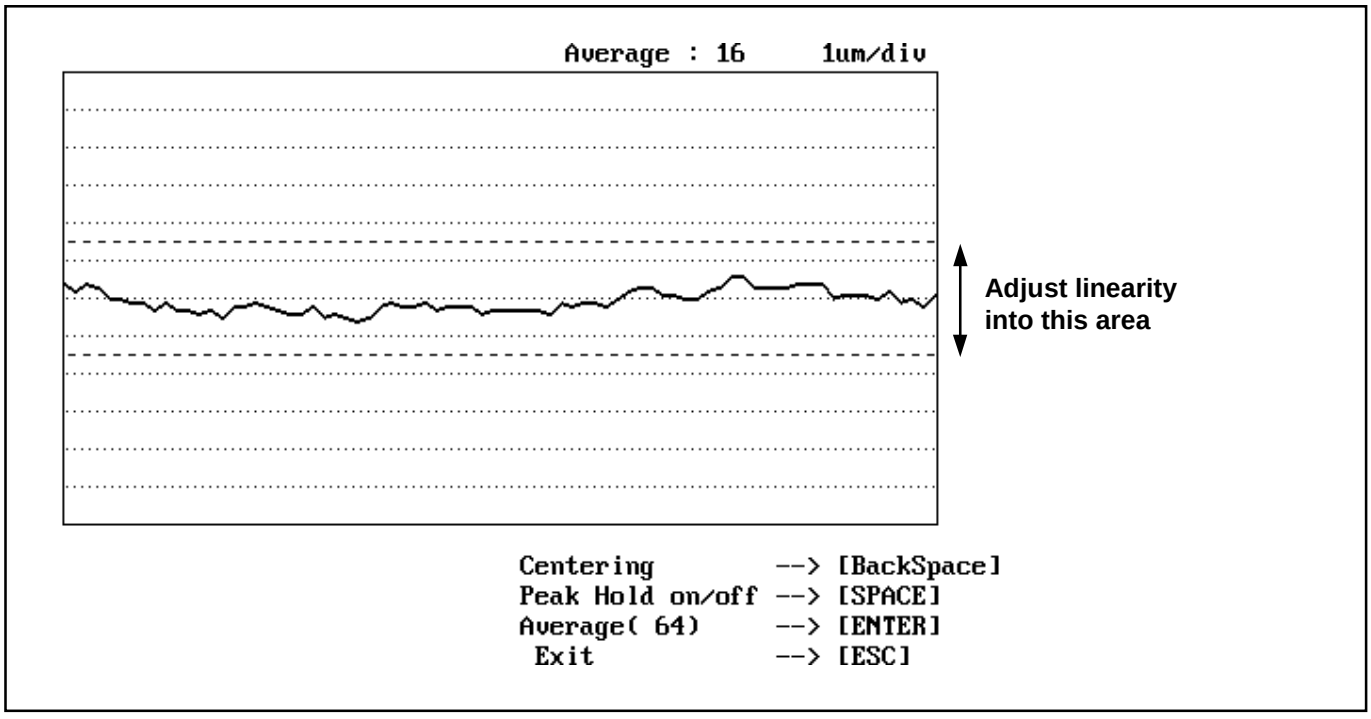
4-33. LISTA Linearity Adjustment and Waving Measurement

SPEC.	Linearity: less than 3um, Waving: less than 1.5um	
TEST POINT	ATF	ATF ERR L13: TP601 ATF ERR L24: TP602
	TRG	R/P-FSW L13: TP113 R/P-HSW L24: TP114
	GND	TG300
VTR MODE	PLAY	
ADJ. MODE		
ADJUST	S1 and T1 Post Height	
TOOL	VFK1149 or VFK1149A (Post Driver)	
TAPE	VFM3581KM or VFM3581KL (LISTA)	

Linearity Adjustment Procedures

1. Connect the each clips of LISTA cable to test points.
2. Set the adjustment mode. (Refer to [LISTA Adjustment Modes] on the “Table of Test Point”.)
3. Playback the LISTA Alignment Tape.
4. Select the item “<2> Linearity Measurement” on the LISTA main menu, and then linearity waveform appears on the screen.
5. When the waveform as shown below is displayed on the screen, press the “BS (Back Space)” key to move the waveform at the center of the scale on screen. Adjust S1 and T1 post height by using the post driver so that the linearity waveform becomes as flat as possible, and it should be within the specification.

♦ Adjust linearity, to have waveform in between the red dot lines on the screen.

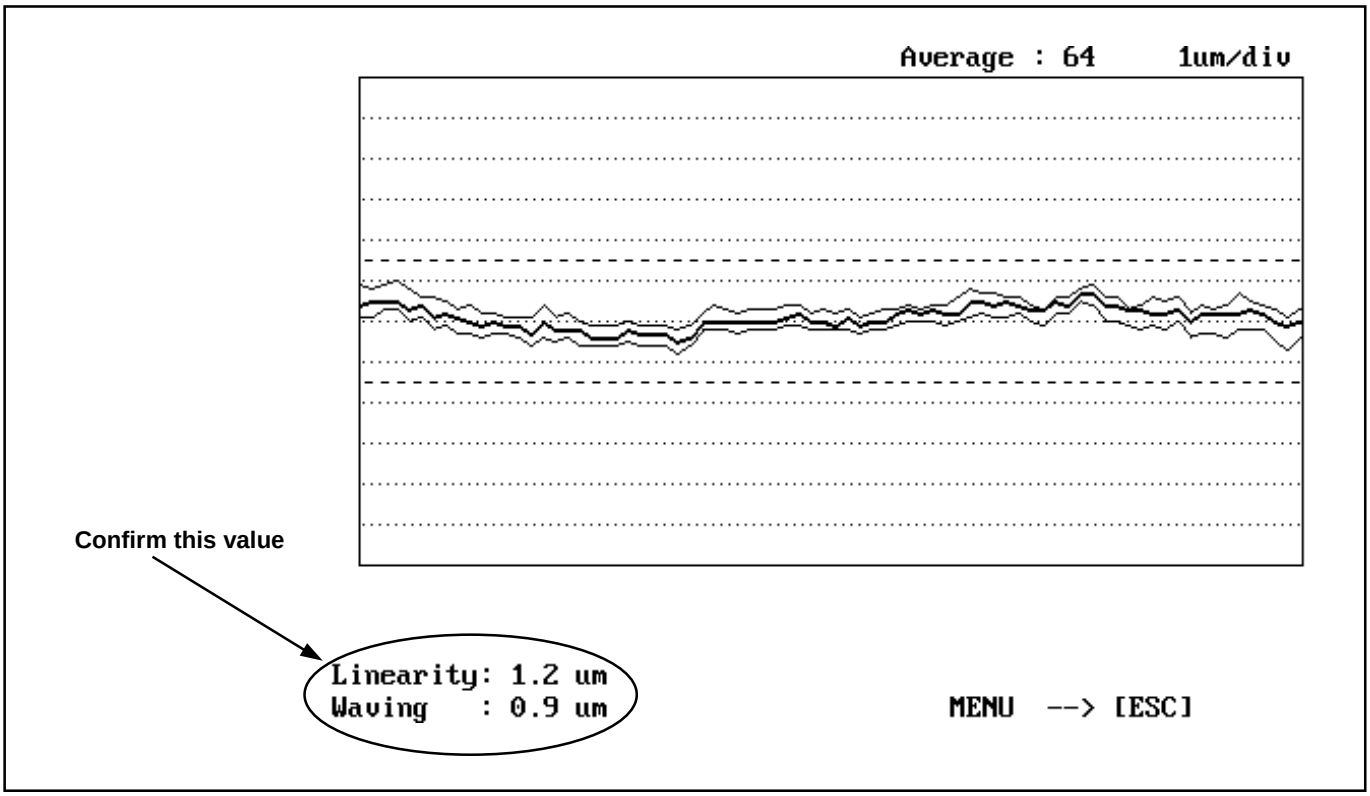


POINT :
The part of left side of waveform (entrance side) is adjusted by height of S1 post and part of right side of waveform (exit side) is adjusted by height of T1 post.
Lower part of above waveform of figure is displayed lead of Cylinder.
When the post driver is removed from upper part of post, linearity waveform may be changed.
After finish this adjustment, eject the tape and insert the tape again to confirm the shape of linearity waveform isn't changed.

6. After finish the Linearity Adjustment, measure the numerical value of linearity and waving.

Waving Measurement Procedures

1. Press "SPACE" key to perform the Peak Hold in 30 seconds when linearity is displayed.
2. After finish the Peak Hold, press "SHIFT" and " } " key simultaneously on the Key Board, then the numerical values of "Linearity" and "Waving" is displayed on left lower portion of screen. And confirm the numerical values are in the specification. Also confirm the waving is same level from entrance side to exit side. If the "Linearity" and "Waving" are out of specification and also it caused by insufficient limit of entrance or exit side of envelope, adjust height of S1 and T1 post.
3. After this measurement is finished, press the ESC key to return to the main menu.



Information : How to save the LISTA Data
Linearity waveform data and measurement value of linearity and waving can be saved as one file data to PC.

1. Basically this operation should be performed after linearity and waving measurement is finished.
2. Select the item "<3> Data Save/Load" on the LISTA main menu, and select the item "<1> Save".
3. The linearity waveform as Peak Hold is displayed on the screen, and message "File Name?" appears on the screen. Then entry the File Name less than 8 letters. And after message "Comment?" appears on the screen, then entry the Comment less than 20 letters. As comment, entry the Serial Number, Model Number, Head Rotation Hours etc to use them for management of each VTR's linearity data.
4. After completion of saving, select the item "<2> Load" of the item "<3> Data Save/Load", then the saved File Name appears on the screen. And select previously saved file to confirm the waveform and numerical value is displayed correctly. By pressing "SHIFT" and " } " key simultaneously on the Key Board, the numerical values of "Linearity" and "Waving" is displayed on left lower portion of screen.

4-34. Self-REC/PLAY Envelope Waveform Confirmation

SPEC.	All of the head output are within the specification as shown below. Confirm in the 50M mode when the VTR or Camera Recorder is 50M models. · When using the M Cassette (66 min.) or L Cassette (126 min.) V1/Vmax, V3/Vmax ≥ 0.7 V2/Vmax ≥ 0.8	
TEST POINT	R/P-ENV L13: TP400	R/P-ENV L24: TP402
	R/P-ENV R13: TP401	R/P-ENV R24: TP403
	TG300: GND	
M. EQ.	Oscilloscope	
TAPE	M Cassette (66 min.) or L Cassette (126 min.)	
TOOL	VFK1149 or VFK1149A (Post Driver)	

1. Input the color bar signal and record it.
2. Playback the just recorded portion, and confirm the envelope output is within the specification.
3. If it is out of specification, perform the “ENV Waveform Adjustment” and “LISTA Adjustment” again.

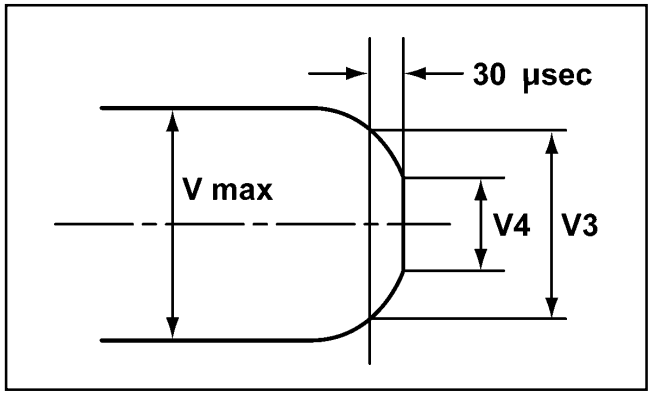


Figure 4-34

5. Major Mechanical Parts Replacement & Adjustment Procedures

When mechanical parts are replaced, pay attention to the following notes.

1. Always turn power off before replacing any parts.
2. If any adjustment is required after replacing parts, perform the required adjustment.
3. Use proper tools and fixtures.
4. Be sure to clean the parts after replacement, and also to replace the mechanical parts, follow the replacement procedure.

5-1. Cylinder Unit Replacement

(Removal)

1. Remove the T1 Guide and Cleaning Arm Unit. (Please refer to item “5-2. Cleaning Arm Unit Replacement”)

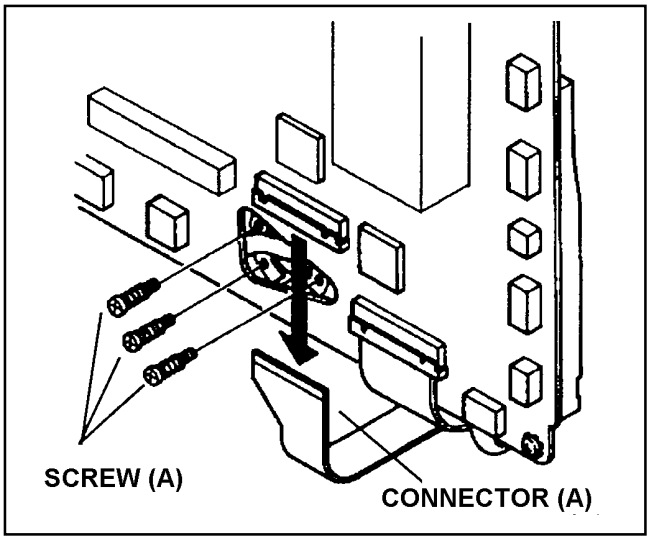


Figure 5-1-1

2. Unscrew the screw (B) which fix the cable (B) as shown in Figure 5-1-2.
3. Remove the flexible cable which connected to connector (A) on the P.C.Board as shown in 5-1-1.
4. Unscrew the 3 screws (A) which have spring from the Cylinder Unit as shown as Figure 5-1-1, then remove the Cylinder Unit without touching any mechanical parts as shown in Figure 5-1-2.

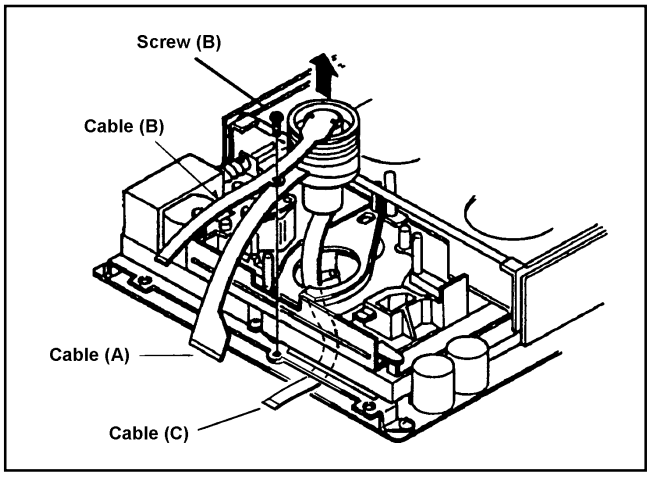


Figure 5-1-2

NOTE:
Don’t touch the cylinder by finger directly, when pull out the Cylinder Unit.

(Installation)

1. Install the new Cylinder Unit according to the opposite procedures of removing.

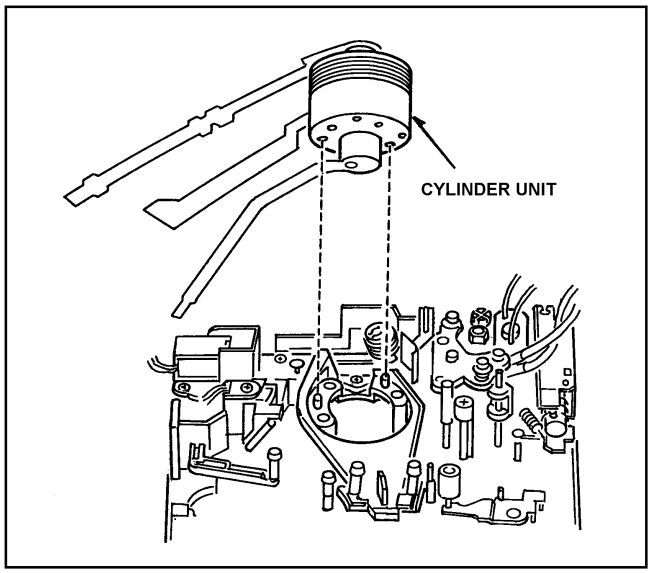


Figure 5-1-3

NOTE:
When installing the Cylinder Unit, the pin on Mech. Chassis should match with holes of Cylinder Unit as shown in Figure 5-1-3.

2. After installing the T1 Guide, T1 Guide Position Adjustment should be performed.
   (Please refer to item “5-2. Cleaning Arm Unit Replacement” and “5-3. T1 Guide Position Adjustment”)

5-2. Cleaning Arm Unit Replacement

(Removal)

1. Unscrew the 2 screws (A) and remove the T1 Guide as shown in Figure 5-2.
2. Widen the tip of the cleaner arm, lift up the cleaning arm unit and remove the spring and washer.

(Installation)

1. Install the spring and washer.
2. Insert Cleaning Arm Unit temporary to T2 Arm Unit. Install the spring to between Cleaner Base Plate and Cleaning Arm Unit, and insert Cleaner Arm Unit to T2 Arm Unit perfectly.
3. Rotate the cylinder by hand in the pressing the core of the Cleaner Solenoid, and confirm that the Cleaner Roller rotate.
4. Install the T1 Guide.
5. After install the T1 Guide, please perform the item “5-3. T1 Guide Position Adjustment”.

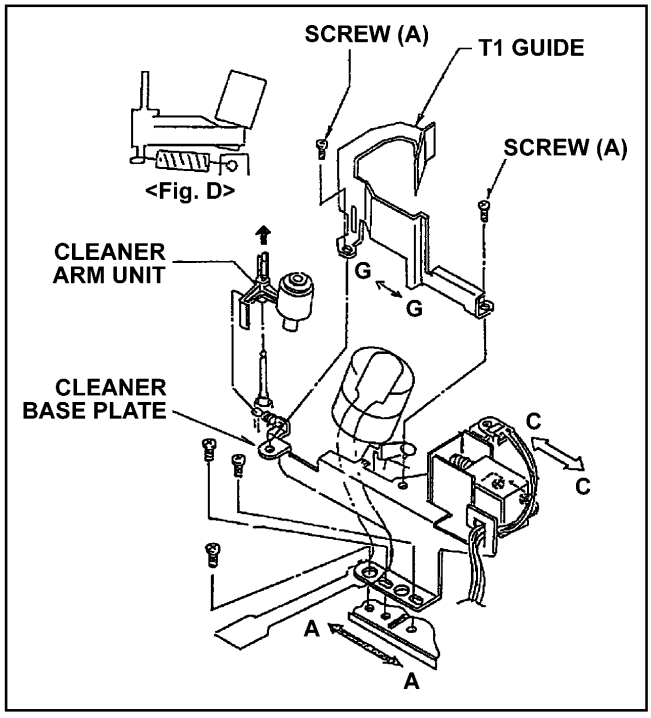


Figure 5-2

5-3. T1 Guide Position Adjustment

1. Place the unit to loading condition without the tape.
2. Observe the clearance (B) between T1 Guide and T1 post as shown in Figure 1-3, and make sure that it is within 0.2mm to 0.5mm.
3. If not, loosen the 2 screws (A) and adjust the position of the T1 Guide moves to direction of arrow (G ⟷ G) so that the clearance (B) is within the specification. And tighten the 2 screws (A).

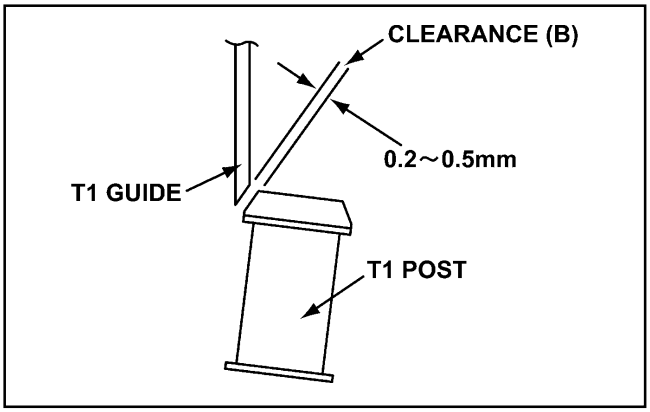
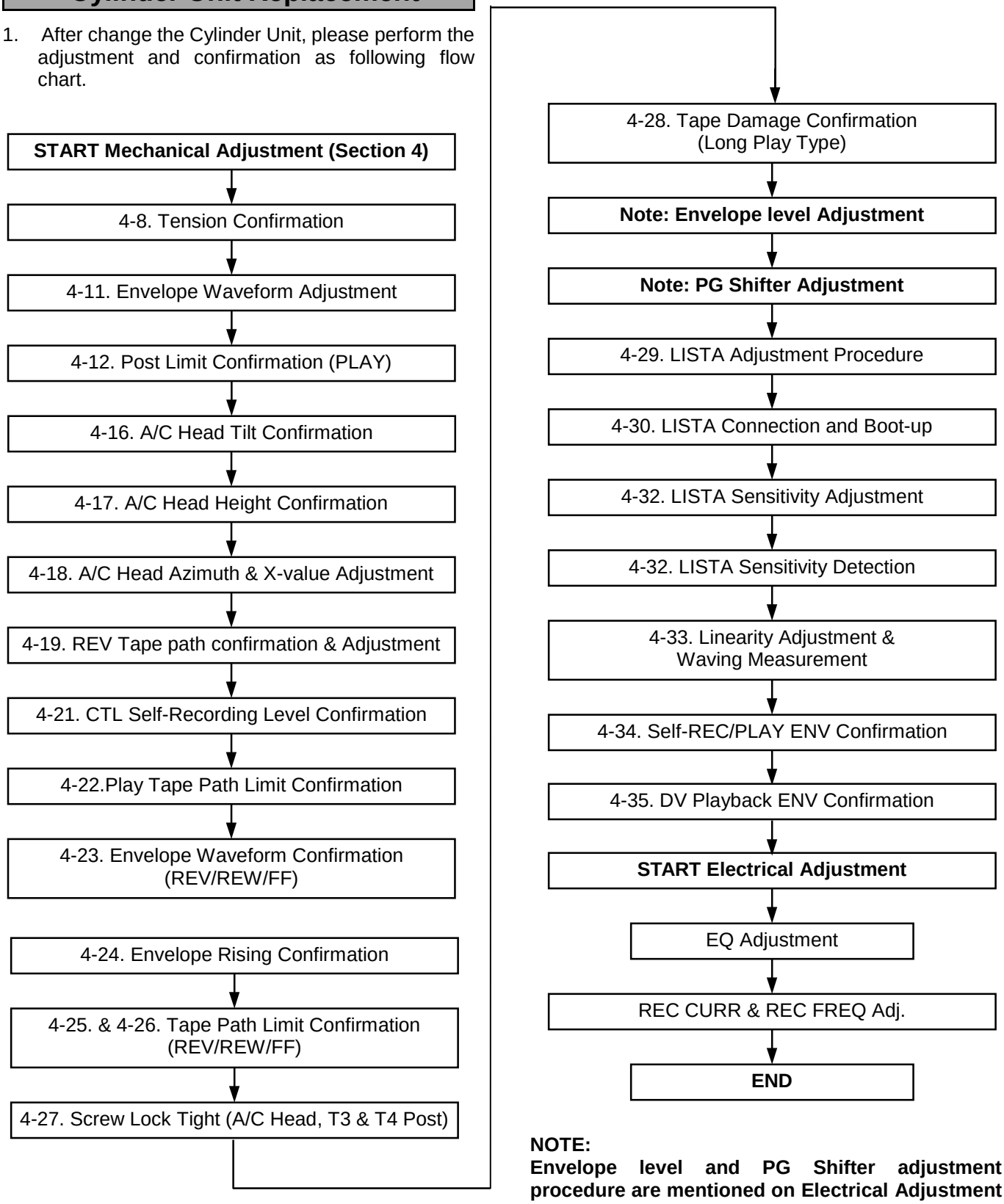


Figure 5-3

5-4. Adjustment Flow Chart After Cylinder Unit Replacement

1. After change the Cylinder Unit, please perform the adjustment and confirmation as following flow chart.



NOTE:
Envelope level and PG Shifter adjustment procedure are mentioned on Electrical Adjustment Procedure on Service Manual.

5-5. Supply & Take-up Reel Rotor Unit Replacement

<Supply Reel Rotor Unit Replacement>

(Removal)

1. Disconnect the connector P2614 on the Servo P.C.Board.
2. Turn the Emergency Gear until S1 Post move to center loading position and remove the S5 Post Base Unit (Refer to item 5-17).
3. Pull up the Arm Return Spring on the Connection Arm Angle Side and disconnect the Connection Arm Angle.
4. Unscrew the 2 screws (C) to remove the Supply Reel Stopper as shown in below figure.
5. Push the Reel Table to middle position and unscrew the 2 screws (D) to remove the Supply Reel Rotor Unit as shown in Figure 5-3.
6. Remove the 2 Cut Washers to remove the Idler Arm Unit.

<Take Up Reel Rotor Unit Replacement>

(Removal)

1. Disconnect the connector P2615 on the Servo P.C.Board.
2. Unscrews the 2 screws (E) and then remove the Take Up Reel Stopper.
3. Push the Reel Table to middle position and unscrew the 2 screws (F) to remove the Take Up Reel Rotor Unit as shown in below figure.

(Installation for both unit)

1. Install the new Reel Rotor Unit according to the opposite procedures of removing.
2. After change the both Reel Rotor Unit, “Reel Torque Adj.” And “Main Brake Torque Confi.” Procedures Should be Performed.

CAUTION: Don't touch FG portion with the magnetized screw driver.

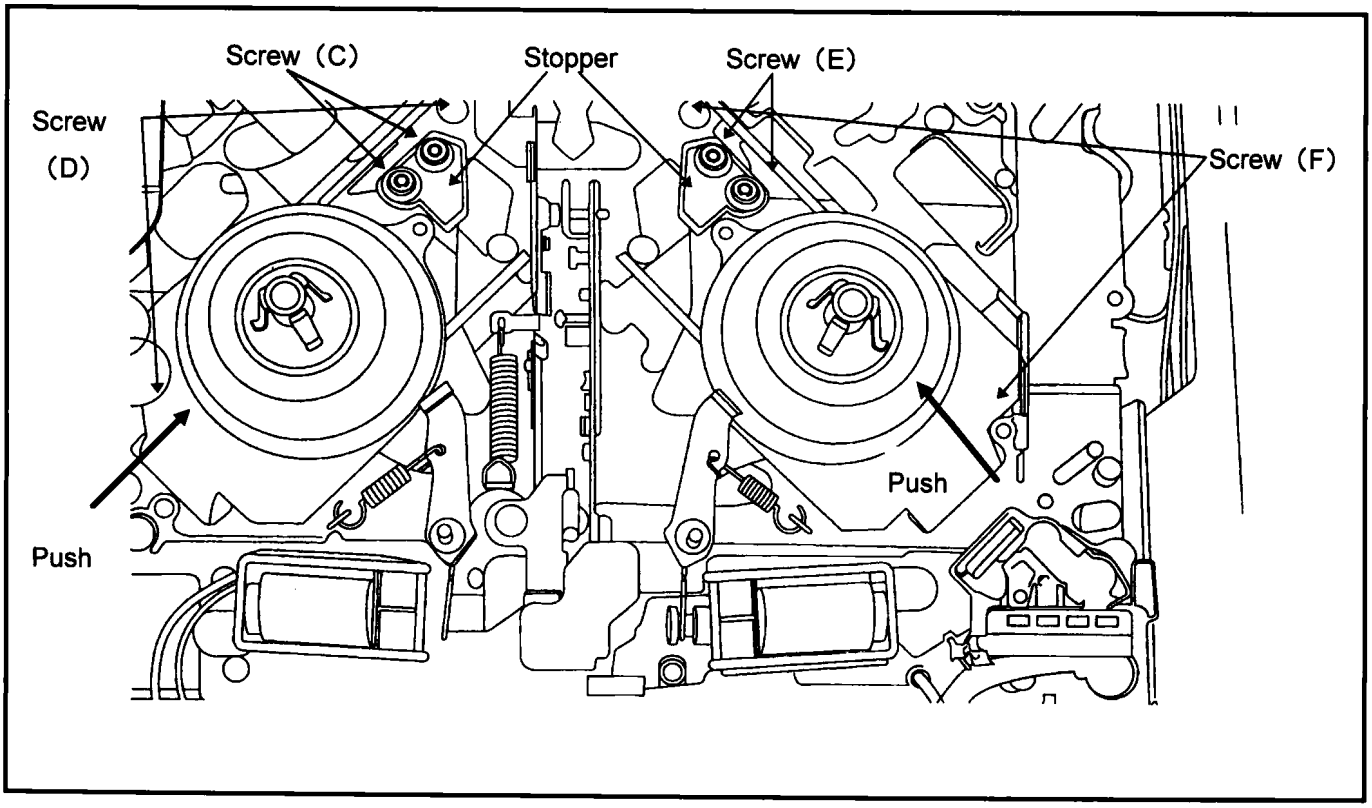


Figure 5-5

5-6. Main Brake Torque Confirmation

TEST	S Reel, T Reel
MODE	EJECT (Power OFF)
TOOL	Torque Gauge (VFK71A, VFK1191A) Torque Gauge Adapter (VFK1152)
SPEC.	**Direction A**
	0.4cN-m ± 0.2cN-m (40g-cm ± 20g-cm)
	Direction B
	0.2cN-m ± 0.1cN-m (20g-cm ± 10g-cm)

1. Install the adapter (VFK1152) to the torque gauge (VFK71A).
2. Put the torque gauge on S Reel and turn the torque gauge to direction A until S Reel slips against brake.
3. Confirm the torque is within the specification.
4. Put the torque gauge on T Reel and turn the torque gauge to direction A until T Reel slips against brake.
5. Confirm the torque is within the specification.
6. Install the adapter (VFK1152) to the torque gauge (VFK1191A).
7. Put the torque gauge on S Reel and turn the torque gauge to direction B until S Reel slips against brake.
8. Confirm the torque is within the specification.
9. Put the torque gauge on T Reel and turn the torque gauge to direction B until T Reel slips against brake.
10. Confirm the torque is within the specification.

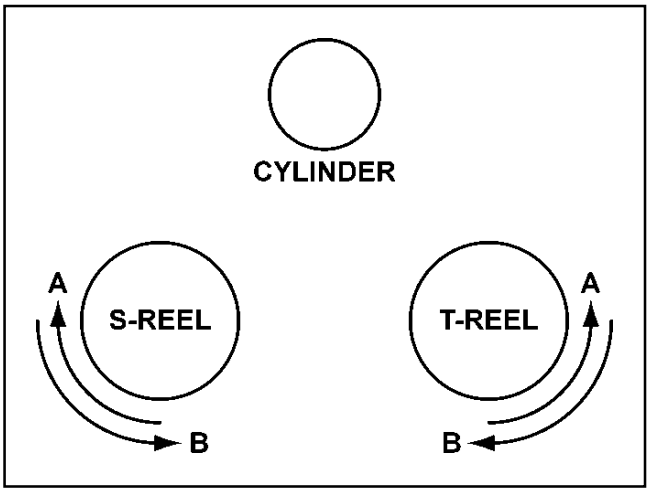


Figure 5-6

5-7. Pinch Solenoid Replacement

(Removal)

1. Remove the Cassette Cover, both Side Panel, Cassette Up Unit and open the VTR MAIN.
2. Disconnect the connector P610 on the Servo P.C.Board.
3. Unscrew the 2 screws (A) and remove the Pinch Solenoid Unit as shown in Figure 5-7.
4. Unscrew the 2 screws (B) and remove the Pinch Solenoid Angle as shown in Figure 5-7.
5. Unscrew the 2 screws (C) and remove the Pinch Solenoid from the Pinch Solenoid Base.

(Installation)

1. Install the new Pinch Solenoid following the removal steps in reverse order.
2. After installation, perform the Pinch Solenoid Position Adjustment.

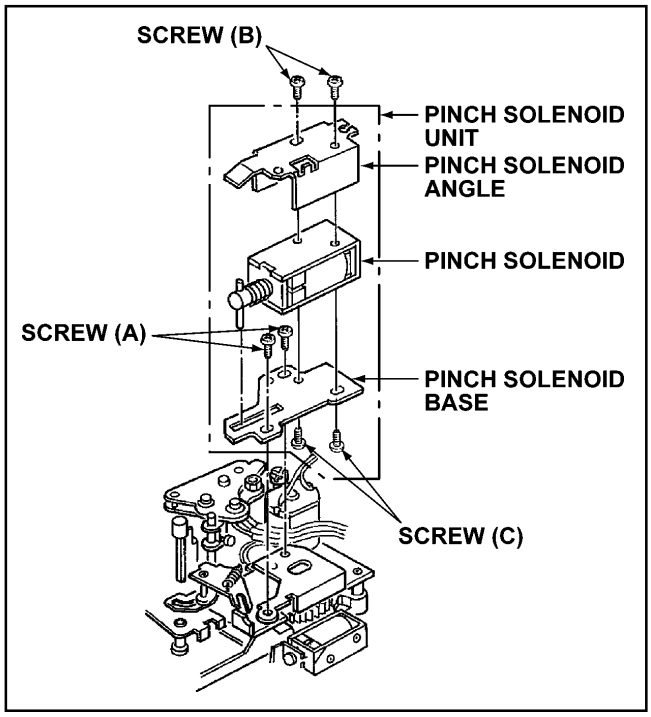


Figure 5-7

5-8. Pinch Solenoid Position Adjustment

SPEC.	T = 0.3 mm
TEST	Gap T
ADJUST	Screw (A) and Hole (B)
MODE	EJECT (Power OFF)
TOOL	Eccentric Driver (VFK0357)

1. Confirm the power is turned off.
2. Push the pinch roller by hand to be close to capstan.
3. Push the pinch solenoid by hand so that the pinch roller contacts capstan.
4. Loosen the two screws (A) and adjust the hole (B) by VFK0357 so that gap (T) is within the specification.
5. The position to confirm Gap, is at spring scratch to Plate (C) side.

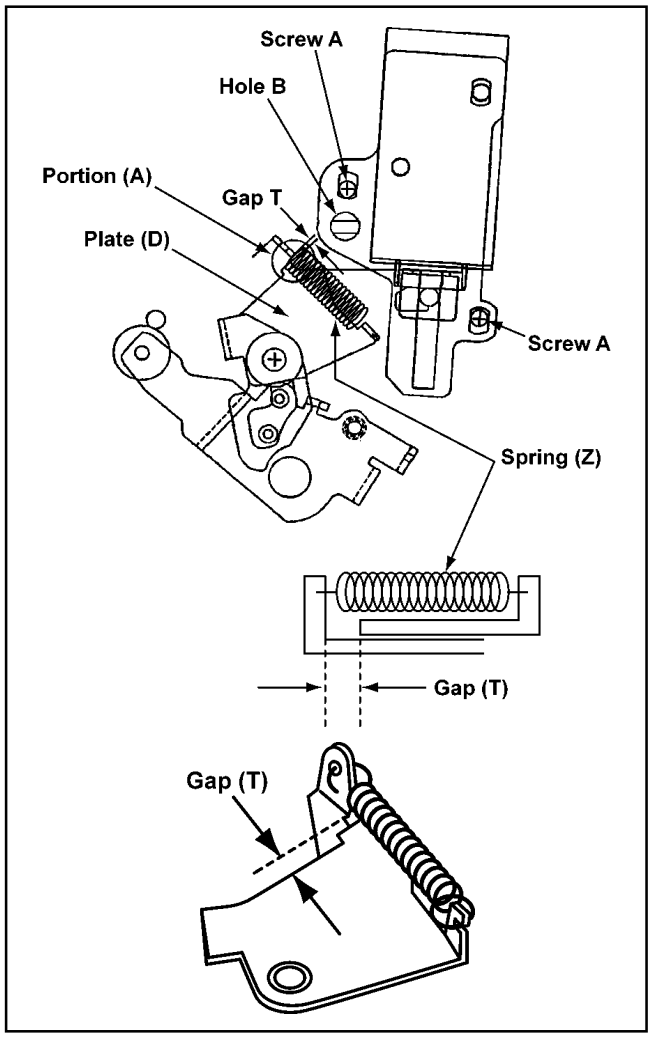


Figure 5-8

5-9. Pinch Arm Unit Replacement

(Removal)

1. Refer to item “5-7.Pinch Solenoid Replacement” to remove the Pinch Solenoid Unit.
2. Remove the cut washer (A) and remove the Pinch Solenoid Lever as shown in Figure 5-9.
3. Remove the cut washer (B) and remove the Pinch Arm Unit as shown in Figure 5-9.

(Installation)

1. Install the new Pinch Arm Unit following the removal steps in reverse order, and then Pinch Solenoid Position Adjustment is necessary.

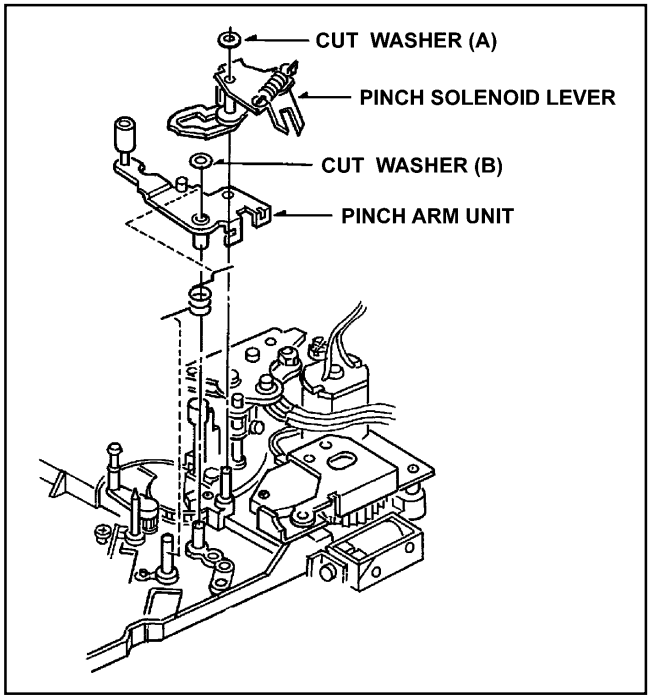


Figure 5-9

5-10. Loading Motor Unit Replacement

(Removal)

1. Disconnect the connector P611 on the Servo P.C.Board.
2. Remove the Pinch Solenoid Unit. (Refer to item 5-7).
3. Unscrew the screw (B), and remove the Emergency Shaft as shown in Figure 5-10.
4. Unscrew the 2 screws (C) and remove the Loading Motor Neutral Unit as shown in Figure 5-10.
5. Unscrew the 2 screws (D) and remove the Loading Motor Unit as shown in Figure 5-10.

(Installation)

1. Install the new Loading Motor Unit to Loading Motor Neutral Unit by tightening 2 screws (D).
2. Install the Loading Motor Neutral Unit by tightening the 2 screws (C), paying attention to the pin of Mode SW Unit which should match with groove position of main Cam Gear.
3. Install the Emergency Shaft by tightening the screw (B).
4. Install the Pinch Solenoid Unit and after installation it, Pinch Solenoid Position adjustment is required. (Refer to item 5-8).
5. Connect the Connector P611 to the Servo P.C.Board (B).

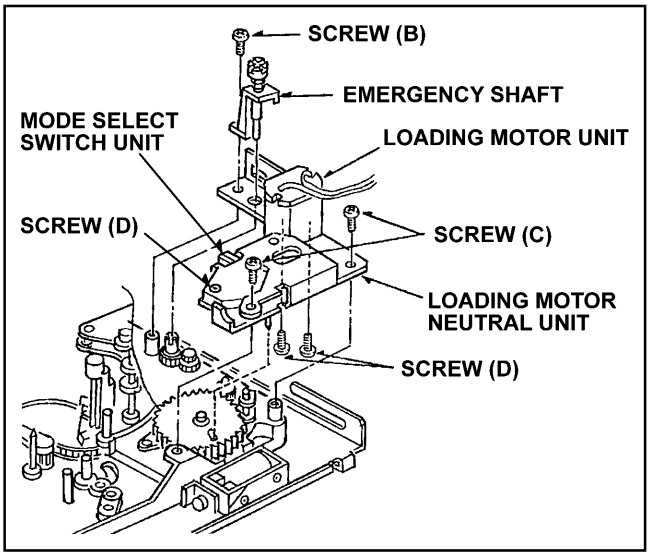


Figure 5-10

5-11. Mode SW Unit Replacement

(Removal)

1. Disconnect the connector P612 on the Servo P.C.Board (B).
2. Remove the Pinch Solenoid Unit and Loading Motor Unit. (Refer to item 5-7 and 5-10.)
3. Remove the screw (E) and remove the Mode Select Switch Unit from Loading Motor Unit as shown in Figure 5-11.

Note:

Pay attention to the pin of Mode Switch Unit which should be match with groove of Main Cam Gear.

(Installation)

1. Install the New Mode Select Switch Unit following the removal steps in reverse order (Refer to item "5-10. Loading Motor Unit Replacement").
2. After install the Pinch Solenoid Unit, Pinch Solenoid Position adjustment is required. (Refer to item 5-8).

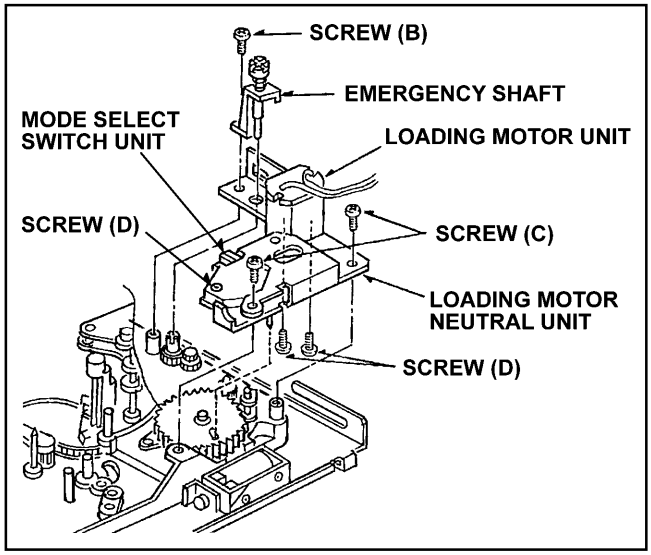


Figure 5-11

5-12. Main Cam Gear Replacement

(Removal)

1. Remove the Pinch Solenoid Unit and Loading Motor Unit. (Refer to item 5-8 and 5-10.)
2. Remove the Main Cam Gear as shown in Figure 5-12.

(Installation)

1. Install the Main Cam Gear, then the pin of Main Cam Arm Unit (*) should match with the groove position of Main Cam Gear as shown in Figure 5-12.
2. Follow the removal steps in reverse order.
3. After installation, perform the Pinch Solenoid Position Adjustment. (Refer to item 5-8)

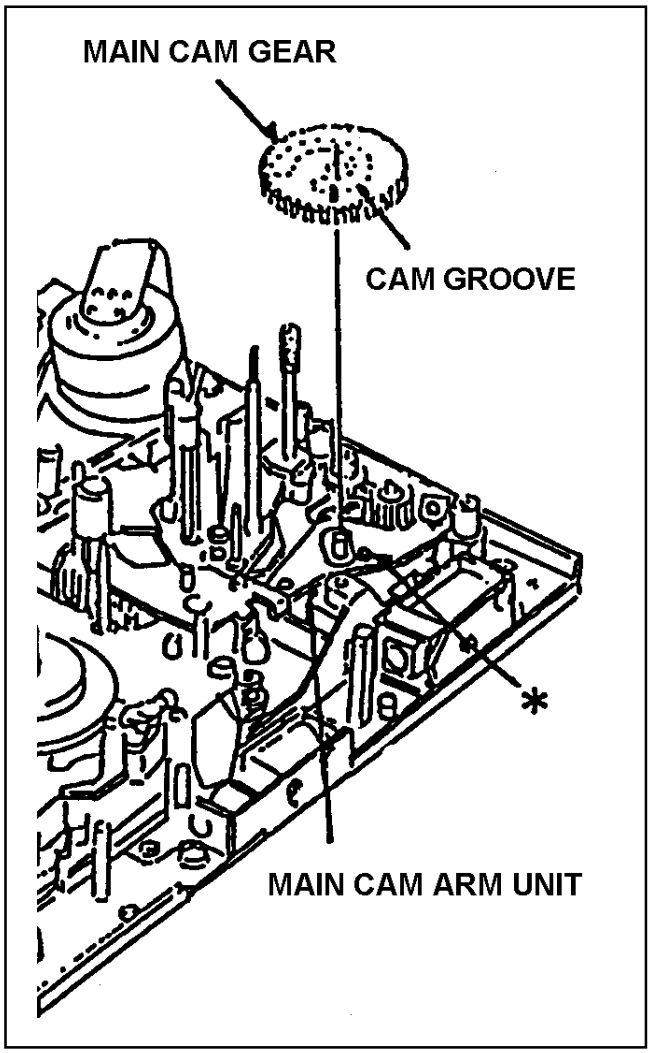


Figure 5-12

5-13. Thrust Screw Replacement and Adjustment

1. Remove the Thrust Adjustment Screw.
2. Clean the capstan shaft with an applicator.
3. Put the oil (VFK0906) on a new Thrust Adjustment Screw and install the upper end of the Capstan Housing.
4. Turn the Thrust Adjustment Screw slowly to counter-clockwise until the Capstan Rotor just starts turning (separate from the Capstan Rotor).
5. Turn the Trust Adjustment Screw to the other angle of 270 degrees from 180 degrees (about 225 degrees) clockwise as shown in Figure 5-13-2.
6. Put the glue (Ex. : Three Bond 1401B) on the Thrust Adjust Screw.
7. Confirm whether the Oil Seal does not come out to contact with the Capstan Housing.

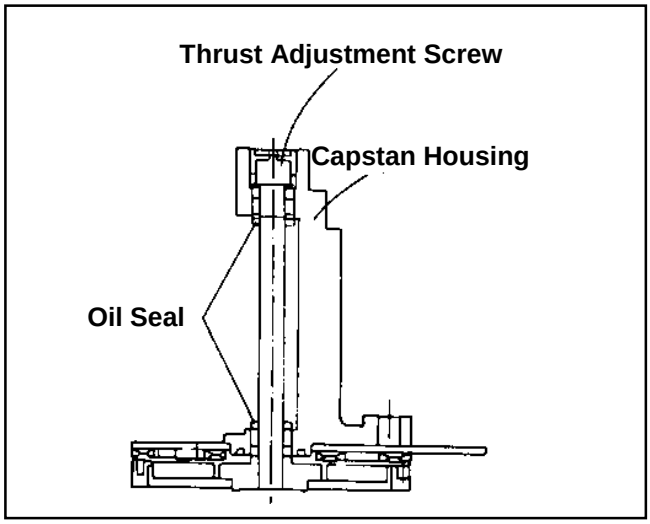


Figure 5-13-1

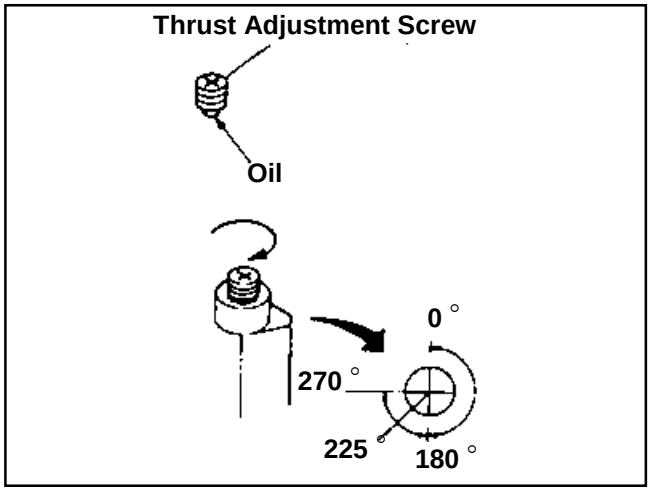


Figure 5-13-2

5-14. S5 Post Base Unit Replacement

(Removal)

1. Unscrew the screw (A) and remove the S5 Post Base Unit as shown in Figure 5-14.

(Installation)

1. Install the S5 post Base Unit follow the removal steps in reverse order.

Note: Be careful the S5 Post Base Unit is installed to mech. chassis as shown in Figure 5-14.

2. After installation, Post Height Pre-Adjustment and Tape path Adjustment should be performed.

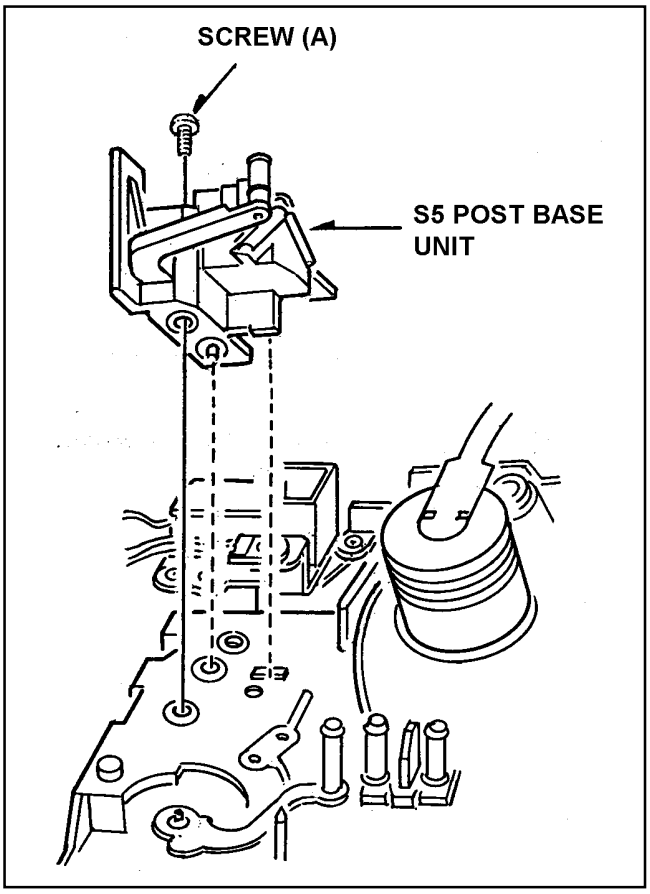


Figure 5-14

5-15. Tension Arm Unit Replacement

(Removal)

1. Remove the Cut Washer (A) and hang off the Tension Regulator Spring, and then remove the Tension Arm Unit as shown in Figure 5-15.

(Installation)

1. Install the new Tension Arm Unit following the removal steps in reveres order.
2. After installation, Tension Arm Adjustment should be performed the following steps.

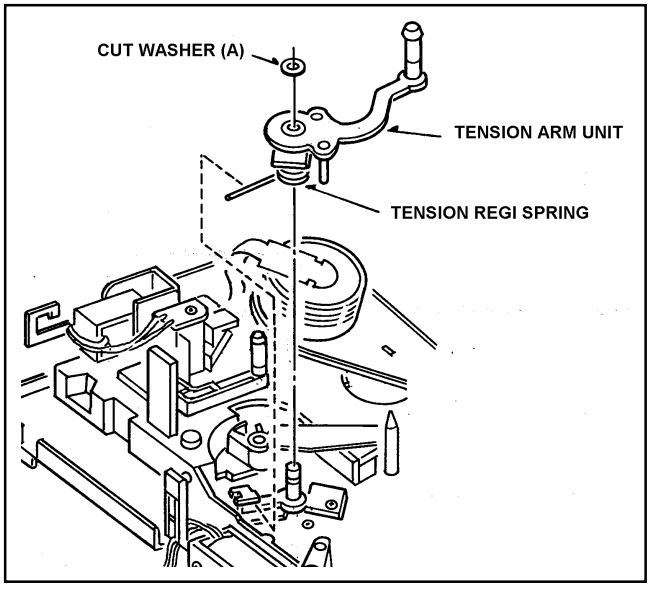
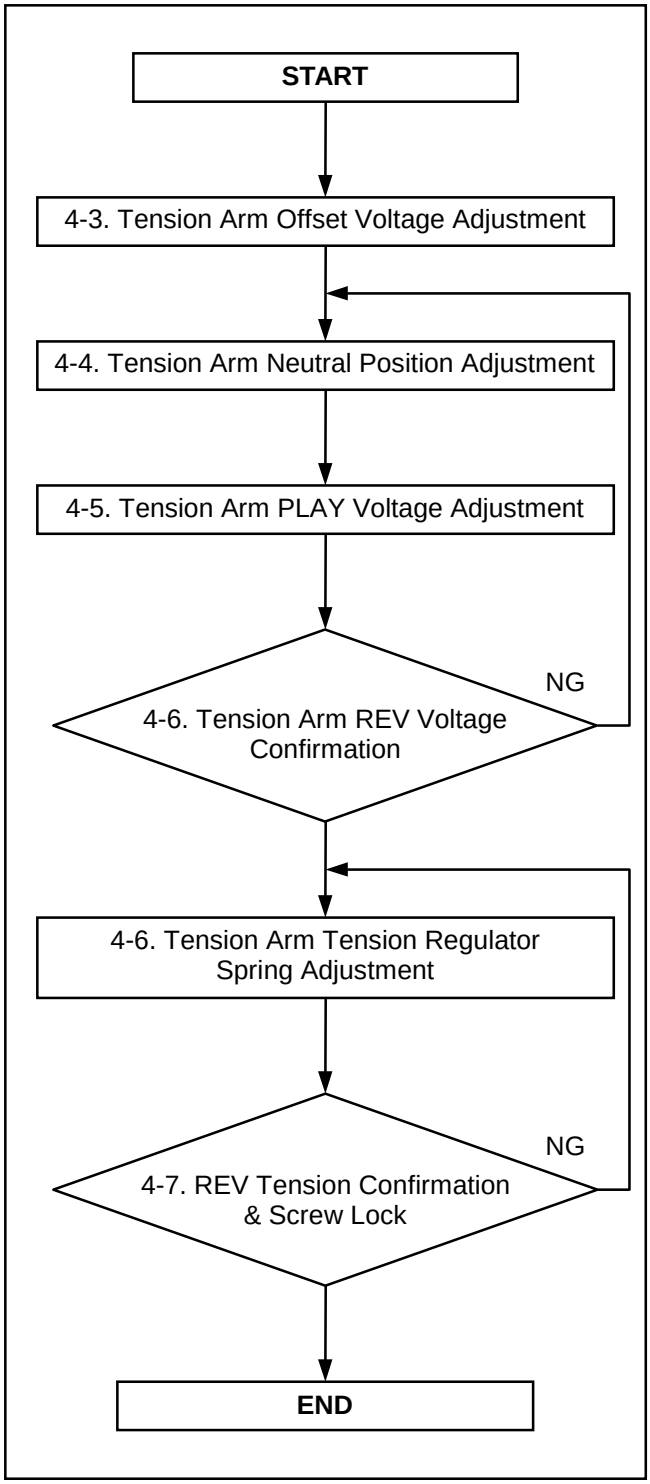


Figure 5-15

<Tension Arm Adjustment Flow Chart>



5-16. S1 Post Loading Arm Unit Replacement & Adjustment

(Removal)

1. Remove the S5 Post Base Unit. (Refer to item 5-14)
2. Remove the Tension Arm Unit. (Refer to item 5-15).
3. Unscrew the screw (A) and remove the S1 Post from Loading Rail as shown in Figure 5-16.

Remove the Cut Washer (B) and remove the S1 Loading Arm Unit as shown in Figure 5-16.

(Installation)

1. Install the new S1 Loading Arm Unit following the removal steps in reverse order, and then S1 Post Loading Arm Unit Phase Adjustment should be performed as follows.
2. After installation, confirm that the S1 Post move smoothly on the Loading Rail.
3. Tension Arm and Tape path Adjustment should be performed.

(Adjustment)

Install and adjust so that the Hole (A) is to be parallel with Hole (B) as shown in Figure 5-16.

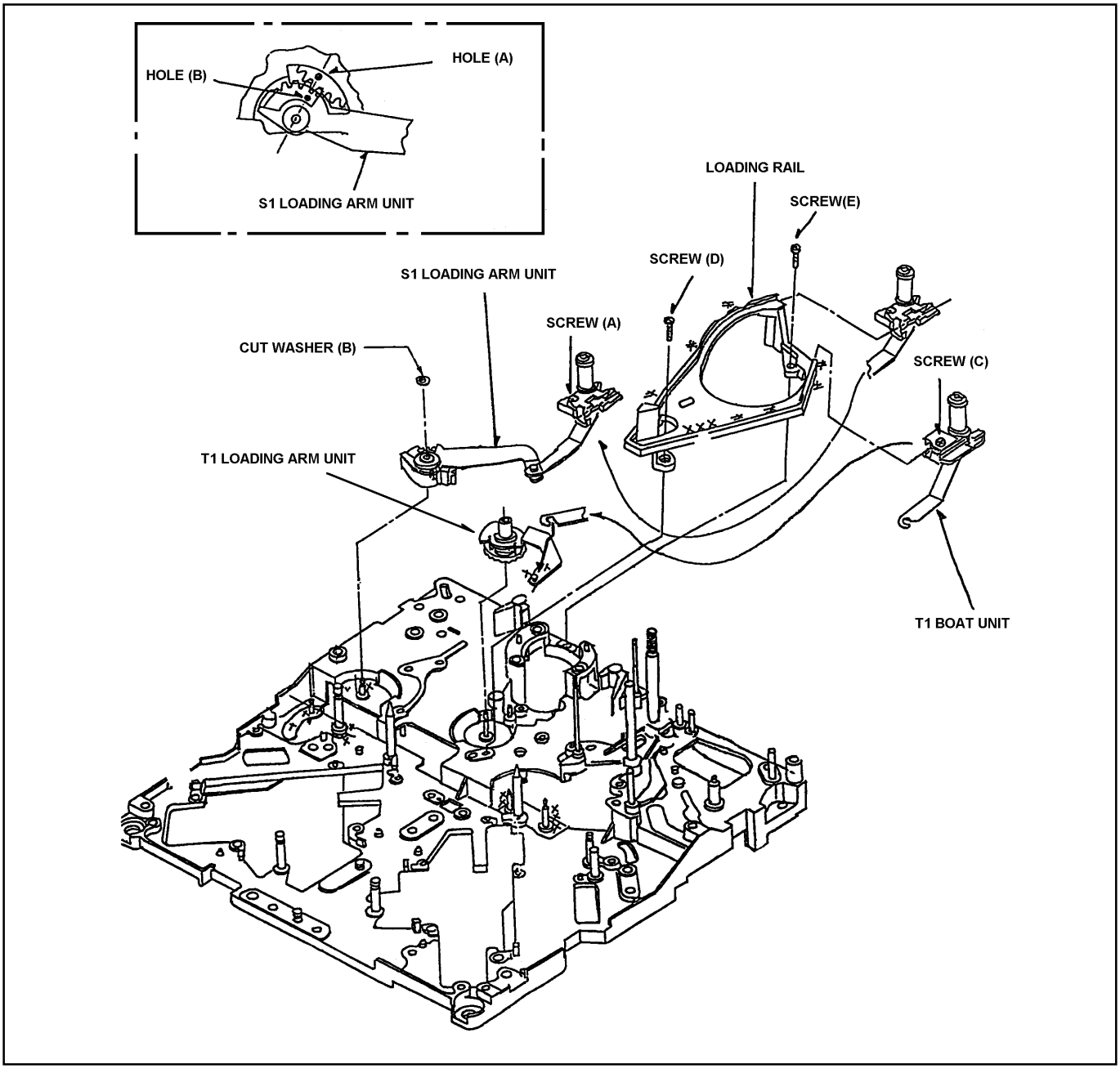


Figure 5-16

5-17. T1 Boat Unit Replacement and Adjustment

(Removal)

1. Unscrew the screw (C) and remove the T1 Post from Loading Rail as shown in Figure 5-16 on the above page.
2. Hang off the T1 Boat Unit from T1 Loading Arm Unit as shown in Figure 5-16.

(Installation)

1. Install the new T1 Boat Unit follow the removal steps in reverse order.
2. After installation, confirm that the T1 Post move smoothly on the Loading Rail.
3. Tape path Adjustment should be performed.

(Know how for Replacing T1 boat)

(1) T1 boat replacing procedure
Fix the T1 boat flat to the T loading arm N ass'y with minimum bending of the T1 boat arm.

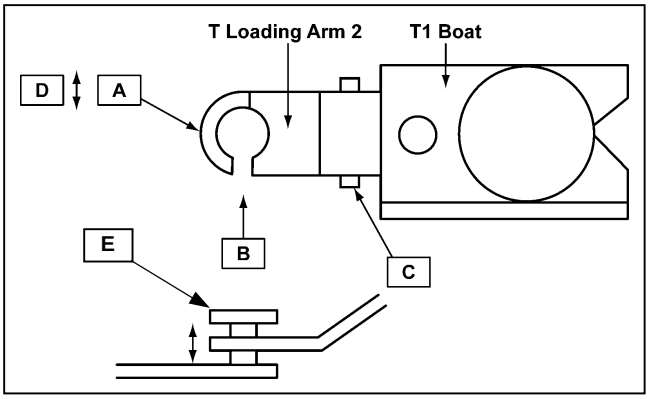


Figure 5-17-1

- If the portion A shown in the figure above is deformed , the T1 boat can cause snag during loading or significant change in X-Value. Visually check the portion A for deformation.
- If deformation is found, remove the T1 boat, flatten the arm by using an appropriate tool such as a pair of long nose pliers and then install the T1 boat. Or, replace the arm with a new one.
- If the portion B shown in the figure above is significantly deformed, the arm can become loose. At a half load position, while pinching the portion C of the arm with tweezers, slightly move the arm in the directions of D shown in the figure several times and make sure that the arm does not come off. If it can come off, remove the T1 boat. Using long nose pliers, narrow the opening B and then fit the T1 boat.

(Confirmation and Adjustment Procedure)

Tool : T Arm Height Adj. Tool A (VFK1542)
T Arm Height Adj. Tool B (VFK1543)

(1) T1 boat replacing procedure

1. Turn clockwise emergency red screw and set the hole of T1 Boat Unit to match line of take up side cassette fixed pin as shown in figure 5-17-2.
2. Push the Pinch Roller by hand to be close to Capstan and push the Pinch Solenoid by hand so that the Pinch Roller contacts Capstan.
3. Set the T Arm Height Adj. Tool A (VFK1452) to take up side cassette fixed pin as shown in figure 5-17-3.
4. Turn the Tool A and confirm that the Tool A is contact to pin E (the position of pin E as shown in figure 5-17-1) as shown in figure 5-17-3.
5. Set the T Arm Height Adj. Tool B (VFK1543) to take up side cassette fixed pin as shown in figure 5-17-3.
6. Turn the Tool B and confirm that the Tool B does not contact to pin E (the position of pin E as shown in figure 5-17-1) as shown in figure 5-17-3.

<Specification of T Arm Height>

	Contact of Pin E
Tool A (have cut)	contact
Tool B (have not cut)	no contact

Note 1: In case Tool A does not contact to Pin E.

1. Remove the T1 Boat Unit from Loading Rail and press up the T Loading Arm 1 by hand to change the height of T Loading Arm.
2. Install the T1 Boat Unit and hit the Pin E from the top lightly.
3. Repeat the T1 Loading Arm Height Adjustment.

Note 2: In case Tool B contact to Pin E.

1. Remove the T1 Boat Unit from Loading Rail and press down the T Loading Arm 1 by hand to change the height of T Loading Arm.
2. Install the T1 Boat Unit and hit the Pin E from the top lightly.
3. Repeat the T1 Loading Arm Height Adjustment.

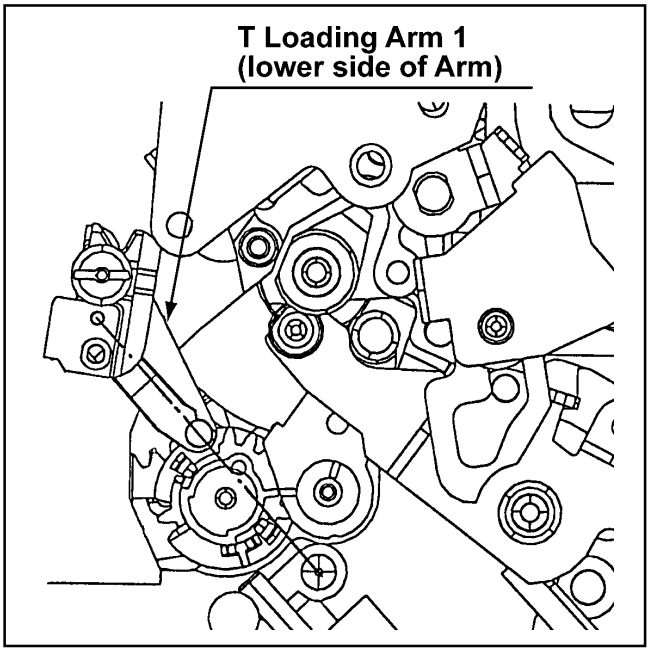


Figure 5-17-2

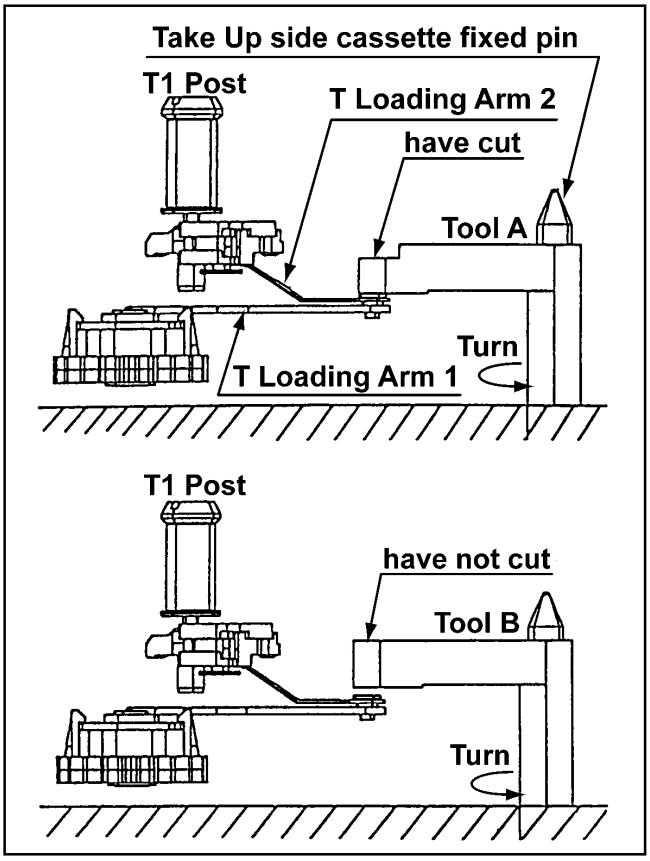


Figure 5-17-3

(2) Checking smooth movement of T1 Boat Unit.
Check X-Value. Check smooth loading and unloading operations. If not smooth (especially, at curve of rail), take the following steps.

1. Check deformation of T1 boat joint.
2. If no deformation, then reposition the loading rail as describe below.

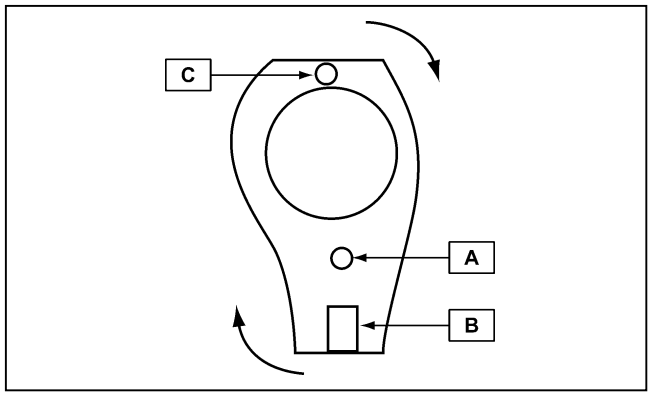


Figure 5-17-4

1. Loosen the screw A.
2. While pressing the projection B leftward, tighten the screw.

If operation is not smooth, remove CYL and loosen screws A and C. Turn the rail clockwise as shown in the figure and then tighten the screws.

If the rail does not work well, replace it or the T1 boat with a new one.

5-18. T1 Loading Arm Unit Replacement & Adjustment

(Removal)

1. Remove the cylinder Unit. (Refer to item 1-1)
2. Move the T1 Post to loading direction by manual ejecting method until the screw (D) can be removal position as shown in Figure 5-16.
3. Unscrew the 2 screws (A) and (C), then remove the S1 and T1 Post from Loading Rail as shown in Figure 5-16.
4. Unscrew the 2 screws (D) and (E), then remove the Loading Rail as shown in Figure 5-16.
5. Remove the T1 Loading Arm Unit as shown in Figure 5-16.

(Installation)

1. Install the T1 Loading Arm Unit following the removal steps in reverse order, and then Phase Adjustment should be performed as follows.

(Adjustment)

1. When install the T1 Loading Arm Unit, then the hole (A) should match with the hole (B) as shown in Figure 5-16.
2. After installation, confirm that the S1 and T1 Post move smoothly on the Loading Rail.
3. Perform the T1 Loading Arm Height Adjustment. (Refer to previous item)
4. After perform the height adjustment, perform the Post Height Pre-Adjustment and Tape path Adjustment.

Note:
This replacement should be performed simultaneously with replacement of Cylinder Unit. It is convenient for Replacement of T1 Loading Arm Unit.

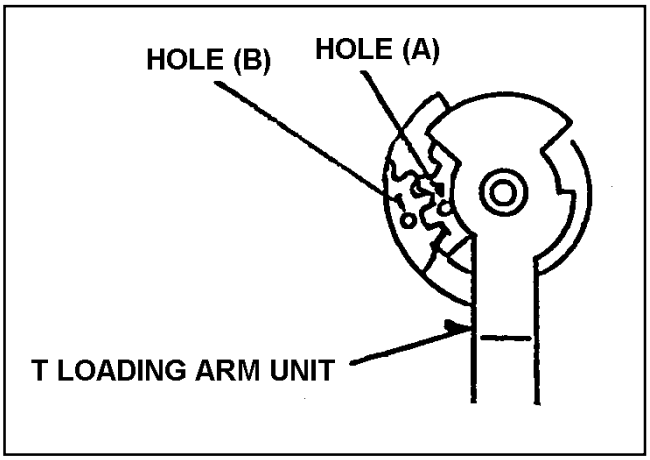


Figure 5-18

5-19. A/C head Replacement & Adjustment

<Tools required>

Nut Driver (5.5mm: VFK1150)
Hex Driver (VFK1148)
Hex Wrench (VFK1190)

(Removal)

1. Remove the Cassette Cover, Left & Right Side Panel and the Cassette Up Unit.
2. Open the VTR MAIN P.C.Boaed and POWER P.C.Board.
3. Loosen the hex screw (B) and remove the Nut (C). Hang off the Head Height Adjustment Spring and then remove the A/C Head Unit as shown in Figure 5-19-1.

Point: Memorize height of the Nut (C) before remove the Nut (C).

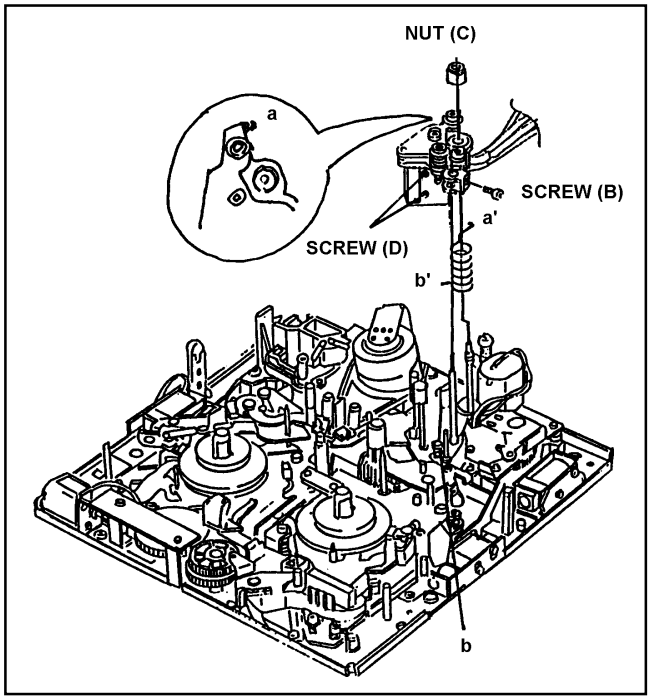


Figure 5-19-1

4. Remove the 2 screws (A) and disconnect the 2 connector on the REAR JACK P.C.Board and SERVO P.C.Board, and then remove the A/C Head from the A/C Head Plate as shown in Figure 5-19-2.

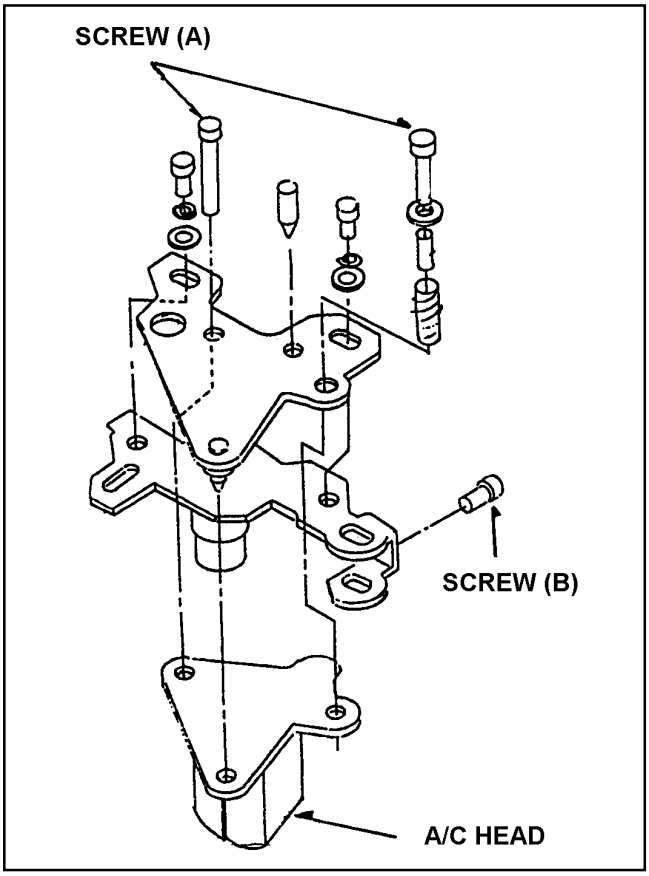


Figure 5-19-2

5. Remove the Shield Cover by removing 2 screws (D).
6. Unsolder the lead wires as shown in Figure 5-19-3. (When unsolder the lead wires, do not unsolder all at the same time)

(Installation)

1. Remove the Shield Case from the New A/C Head and solder the lead wires to New A/C Head. (Refer to Figure 5-19-3)
2. Reinstall the shield case to A/C Head.
3. Install the A/C Head to A/C Head Plate by tightening 2 screws (A), then set to parallel the gap between A/C Head and A/C Head Plate.
4. Install the A/C Head Unit.
5. Hang on the Head Height Adjustment Spring and tighten the Nut (C).
6. Clean the surface of the A/C Head.

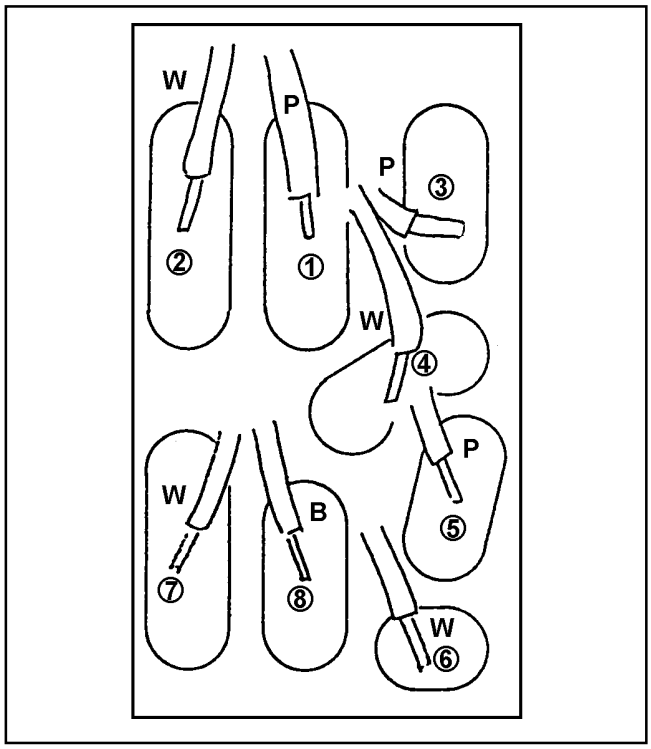
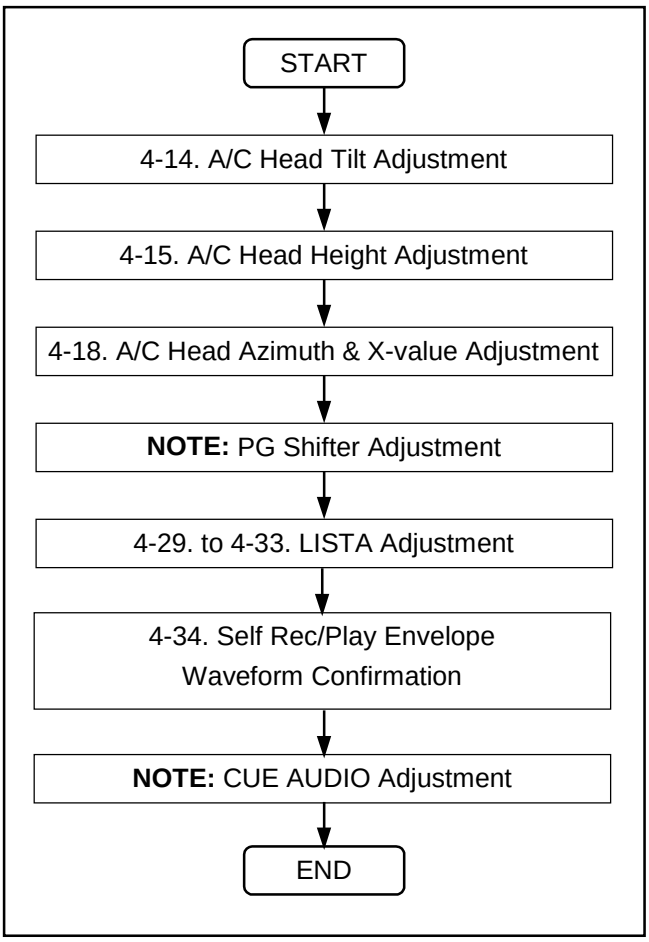


Figure 5-19-3

A/C Head	Cable Color		Connector
1	Pink	Yellow	P1005
2	White		
3	Pink	Red	
4	White		
5	Pink	Green	
6	White		
7	White	Yellow	P600
8	Black		

<A/C Head Adjustment>

1. After change the A/C Head, please perform the following steps.



NOTE:
PG Shifter and CUE AUDIO adjustment procedures are mentioned on Electrical Adjustment Procedures on this Service Manual.

5-20. Cleaner Solenoid Replacement & Adjustment

(Removal)

1. Disconnect the connector P618 on the SERVO P.C.Board.
2. Unscrew the 2 screws (A) and remove the Cleaner Solenoid Unit as shown in Figure 5-20-1.
3. Unscrew the 2 screws (B) and remove the Cleaner Solenoid as shown in Figure 5-20-1.

(Installation)

1. Install the new Cleaner Solenoid follow the removal steps in reverse order.
2. After installation, perform the Cleaner Solenoid Position adjustment.

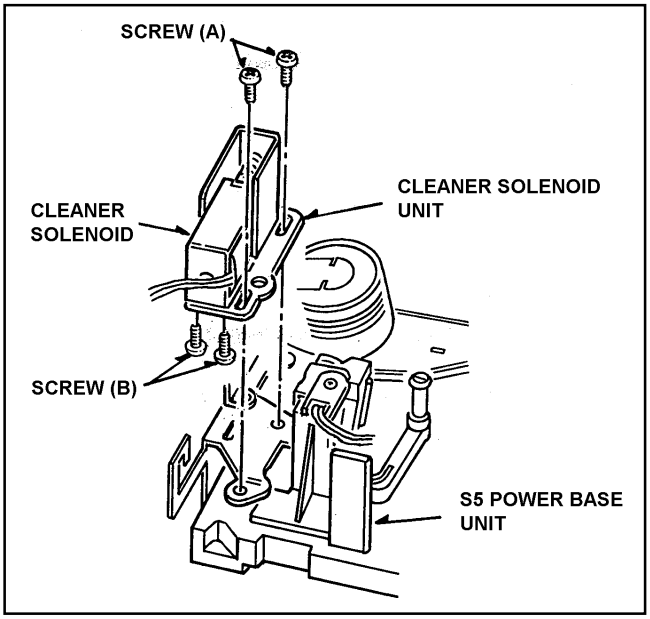


Figure 5-20-1

5-20-1. Cleaner Solenoid Position Adjustment

<Tools required>

Eccentric Driver (VFK0357)

1. Press the iron core of Cleaner Solenoid.
2. Observe the clearance (D) between Cleaning Arm Unit and Cleaner Base Plate as shown in Figure 5-20-2. And make sure that it is within 0.5 to 0.7mm.
3. If not, loosen the 2 screws (A) and adjust the position of Cleaner Solenoid Unit by moving arrow direction (C ←→ C) using the Eccentric drive so that the clearance (D) is within the specification. And tighten the 2 screws.
4. After adjustment, confirm that as follows.
5. Press the iron core of Cleaner Solenoid and released it, then the Cleaning Roller return to original position.
6. Press the iron core of the Cleaner Solenoid and confirm that the Cleaner Roller rotates, when the Cylinder is rotated by hand.

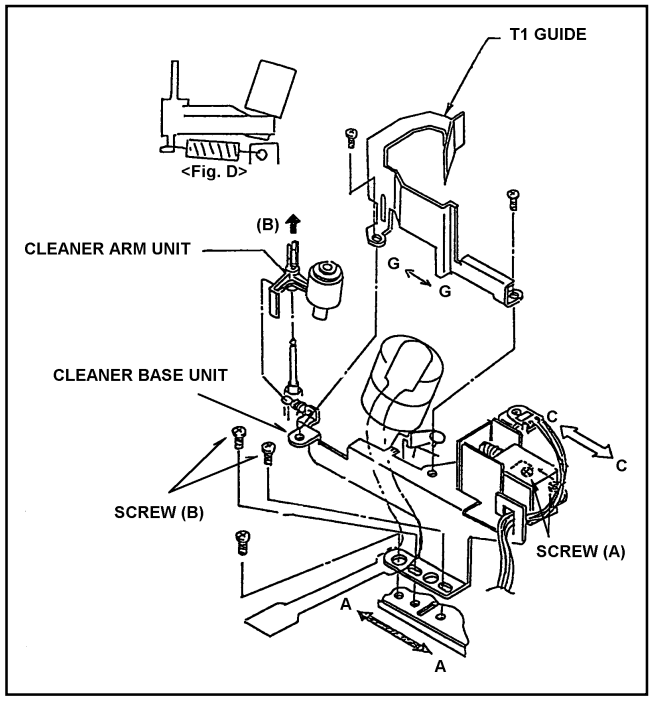


Figure 5-20-2

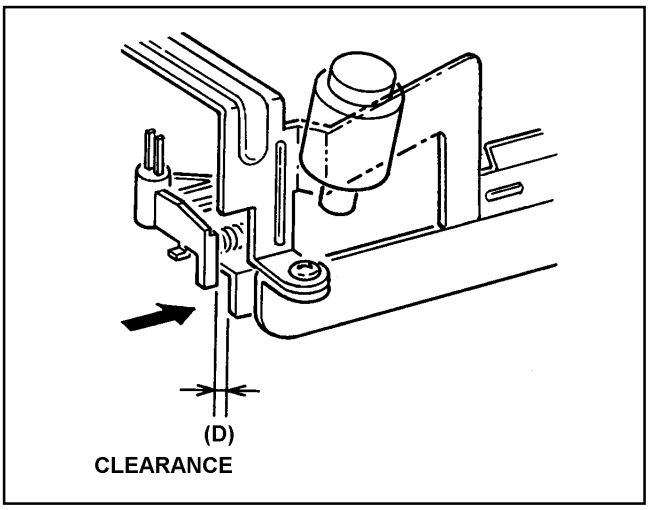


Figure 5-20-3

Note:
If the cleaner Base Plate is removed, execute the Cleaner roller Position adjustment.

5-20-2. Cleaner Roller Position Adjustment

<Tools required>
Eccentric Driver (VFK0357)

1. Observe the clearance (A) between Cleaner Roller and cylinder Unit as shown in Figure 5-20-4. And make sure that it is within 1.0 to 1.2mm.
2. If not, loosen the 2 screws (B) as shown in figure 5-20-2 and adjust the position of Cleaner Base Plate by moving arrow direction (A ←→ A) using the Eccentric driver so that the clearance (A) is within the specification. And tighten the 2 screws (B).

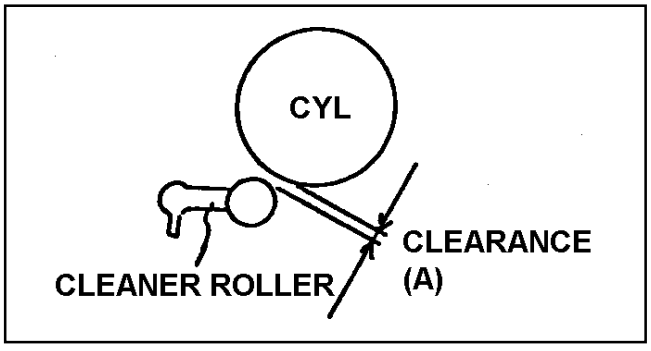


Figure 5-20-4

5-21. MIC Base Unit Replacement

(Removal)
1. Disconnect the connector P607 on the Servo P.C.Board.
2. Unscrew the 2 screws (A) and remove the MIC Base Unit as shown in Figure 5-21.

(Installation)
1. Install the new MIC Base Unit according to the opposite procedures of removing.
2. Confirm that the M cassette touches to MIC Base Unit properly.

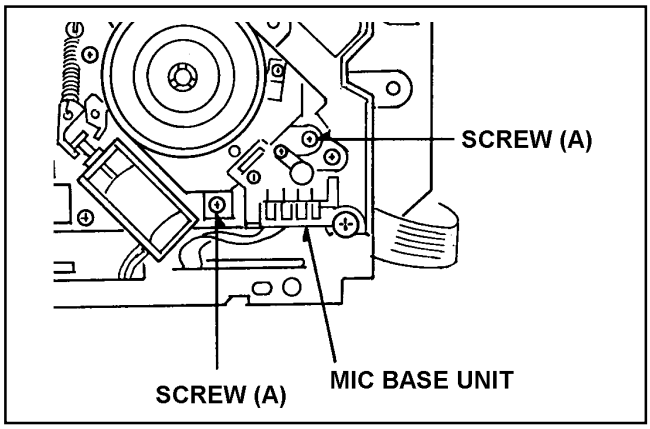


Figure 5-21

5-22. T4 Post Position Adjustment

1. Confirm that the hole (B) of T4 connection Gear match with the hole of T4 post as shown in figure 5-22.
2. Confirm that the portion (C) of T4 connection Gear and hole (A). Those are located as shown in figure 5-22.
3. If not, adjust the phase of T4 post following the above procedure.

Note:
This confirmation should be performed on unloading condition.

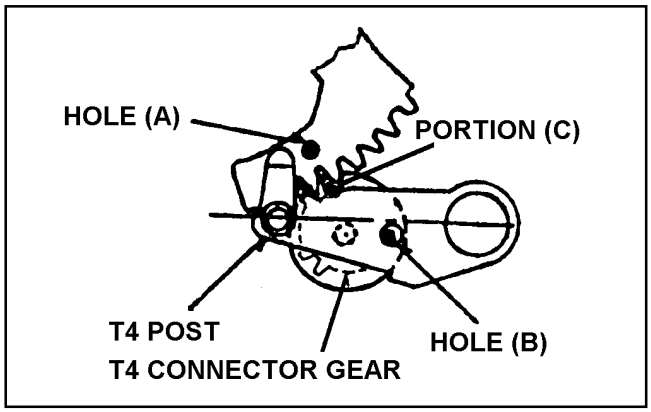


Figure 5-22

SECTION 5

ELECTRICAL ADJUSTMENT

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< CAMERA >
1. OPTICAL UNIT

1-1. Initial Setting

Unless otherwise specified, implement the adjustment of the optical unit by the following setting.

< Lighting >
For the lighting source, use the halogen lamp of 3200K, 500W and set it to get 2000LUX evenly on the surface of object.

< Front switch Setting >

AUTO W/B BAL	: –
GAIN	: L
AWB	: PRST (PRESET)
OUTPUT	: CAM OFF
SHUTTER	: OFF
USER SW 1	: OFF

< Camera Setting >

Lens Extender	: OFF
CC Filter	: 3200K (B)
ND Filter	: CLEAR (1)

< Save the Adjustment Value >
Depending on the adjustment item, it is necessary to save the data in the flash memory on the CAM SYS P.C.Board after adjustment.
For saving each adjustment data, follow the instruction of each adjustment item.

< Menu >
*** CAM DESIGN MENU ***
<LSI REG SET1>
⇒ ADR_H
⇒ ADR_L
⇒ WRITE

1-2. R, G, B RESET DC Adjustment

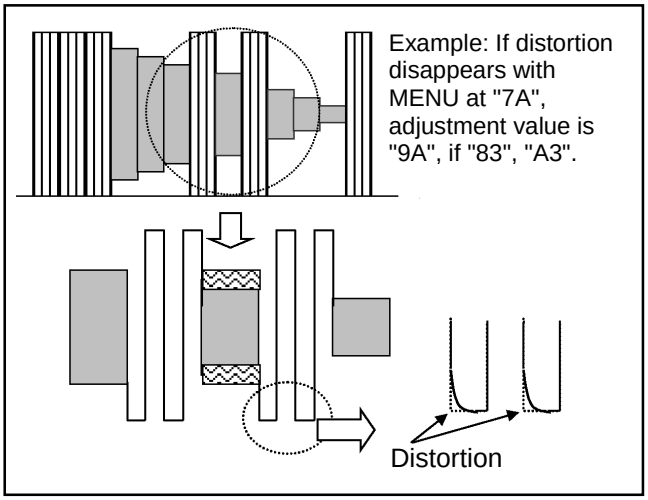
BOARD	-----
TP	SDI OUT (G,B,R) 75ohm termination
ADJUST	Service Menu
F NUMBER	F5.6
MODE	-----
CHART	Immega Cycle Chart (For HD)
M. EQ	WFM
SPEC.	At a level just below onset of white streaking (Waveform Distortion) + 20 (MENU : HEX).

< Camera Setting >
ND Filter : 1/16 ND (3)

< Menu >
*** CAM DESIGN MENU ***
<VDRIVE 1>
⇒ R RESET DC
⇒ G RESET DC
⇒ B RESET DC

1. Aim at the immega cycle chart to be full picture of the monitor.
2. Set the WFM mode to be able to observe R, G, B signal.
3. Adjusts the each RESET DC so that the value for each color signal are within the specification.

Notes:
1. Initial value of MENU must be "80" and then set to a value where the signal becomes no distortion.
2. At the end of the adjustment, set ND filter to "1".



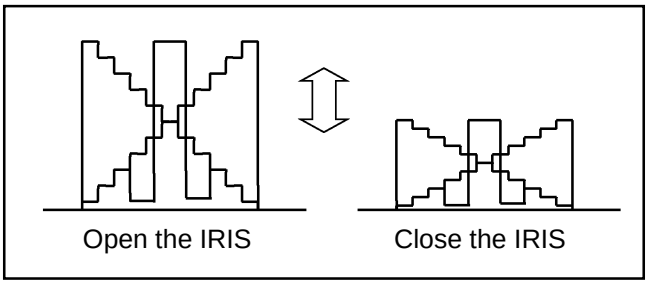
1-3. R, G, B Response Confirmation

BOARD	-----
TP	SDI OUT (G,B,R) 75ohm termination
ADJUST	Service Menu
F NUMBER	OPEN (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	WFM
SPEC.	Stable response against level change.

< Menu >

*** CAM DESIGN MENU ***
<VDRIVE 1>
⇒ R RESET DC
⇒ G RESET DC
⇒ B RESET DC

1. Repeat opening and closing the iris quickly and confirm the response. (Poor response takes a longer delay time after level is changed.)
2. If the response is poor, need fine adjustment of R, G and B RESET DC (increase value).



1-4. H1DC Adjustment

BOARD	-----
TP	SDI OUT (G,B,R) 75ohm termination
ADJUST	Service Menu
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	WFM, Color Monitor TV
SPEC.	Adjust to eliminate H blurs. And then set -10.

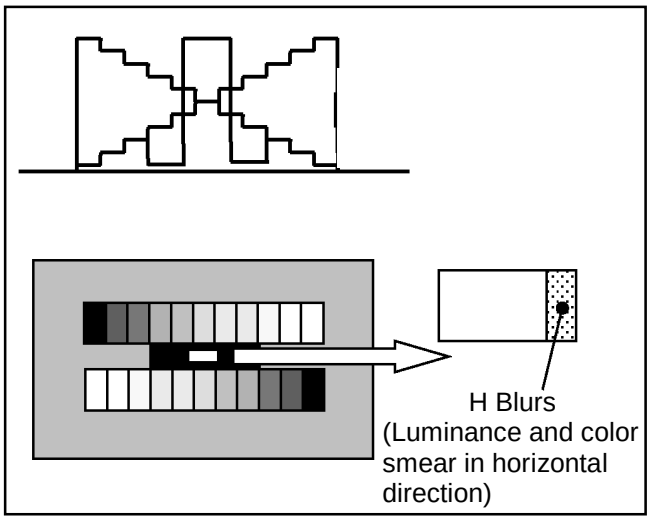
< Menu >

*** MAIN MENU 1 ***
<CAMERA SETTING>
⇒ GAMMA

CAM DESIGN MENU
<VDRIVE 1>
⇒ H1DC

1. Set the GAMMA of the CAMERA SETTING page to ON.
2. The H1DC of the VDRIVE1 page is set to "80" and then confirm that the H Blurs appears or not.
   If the H Blurs appears, adjust H1DC of the VDRIVE1 page so that H Blurs is just disappeared. And then set the value of H1DC minus 10.

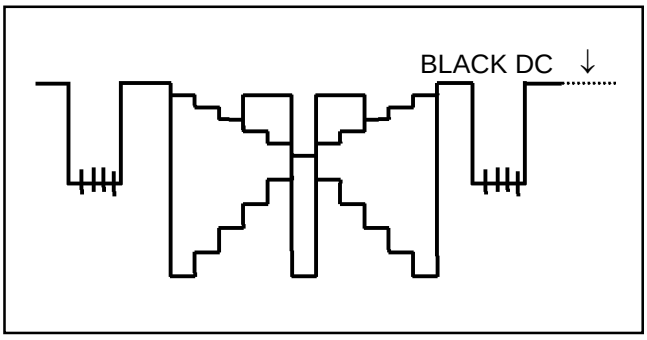
Note:
The adjustment value of the menu is a hexadecimal number display.



1-5. R, G, B PRE AMP DC Adjustment

BOARD	PRE AMP, PRE PROCESS
TP	TP100: R DC [PRE PROCESS] TP200: G DC [PRE PROCESS] TP300: B DC [PRE PROCESS]
ADJUST	VR102: R DC [PRE AMP] VR202: G DC [PRE AMP] VR302: B DC [PRE AMP]
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	Oscilloscope
SPEC.	Black DC Level = 0 mV +/- 50 mV

1. Adjusts VR102 so that the black DC level is within the specification at the TP102.
2. Adjusts VR202 so that the black DC level is within the specification at the TP202.
3. Adjusts VR302 so that the black DC level is within the specification at the TP302.

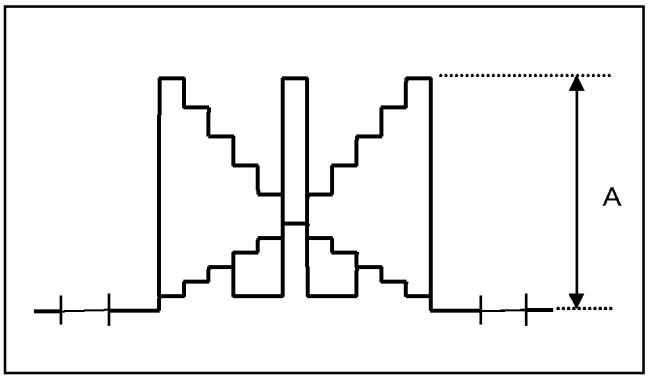


1-6 R, G, B PREPRO Level Adjustment

BOARD	PRE PROCESS (Use the Extender Board)
TP	TP102: R LEV [PRE PROCESS] TP202: G LEV [PRE PROCESS] TP302: B LEV [PRE PROCESS]
ADJUST	VR101: R LEV VR201: G LEV VR301: B LEV
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	Oscilloscope
SPEC.	A = 1300 mV +/- 20 mV p-p

1. Adjust VR101 so that the R level is within the specification at the TP102.
2. Adjust VR301 so that the R level is within the specification at the TP202.
3. Adjust VR501 so that the R level is within the specification at the TP302.

Note:
Level “A” is the size from the BLK portion to the white peak.



1-7. R, G, B SUB Adjustment

BOARD	PRE AMP
TP	TP102: R TP302: B TP202: G
ADJUST	Service Menu
F NUMBER	-----
MODE	-----
CHART	Gray Scale Chart
M. EQ	WFM
SPEC.	As shown below

< Switch Setting >

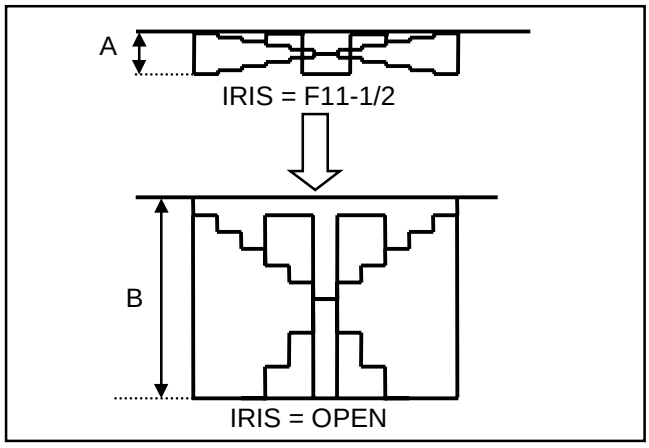
AUTO W/B BAL : AWB, ABB
AWB : A
OUTPUT : CAM ON

< Menu >

*** CAM DESIGN MENU ***
<VDRIVE 1> ⇒ LIST REG SET1
⇒ R SUB ⇒ ADD _H
⇒ G SUB ADD_L
⇒ B SUB WRITE

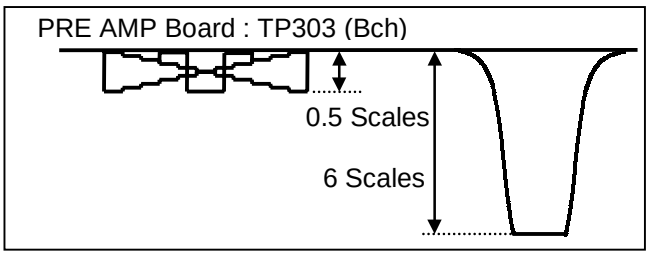
< Adjustment of Rch, Gch >

1. Adjust iris so that the Gch signal level of SDI OUT is 70%, and execute the AWB ⇒ ABB.
2. Adjust iris again following above item 1 and execute the AWB.
3. Aim at the 500 W halogen light and set the zoom position so that the halogen light size is approximately 1/10 at the vertical direction of the monitor.
4. Turn the electric shutter on, and set the shutter speed to 1/2000.
5. Set the Iris to open. And then confirm the smear condition.
   If the color smear appears, adjust R SUB and G SUB until the color smear disappears.
6. Set the electric shutter to off and aim at the 2000 lx grayscale chart at F11-1/2 iris position.
7. Adjust the "VAR" knob on the oscilloscope so that the level of the signal at the TP102 is 1 scale of the oscilloscope.
8. Set the Iris to open, and confirm the waveform level is more than 5 scales. If it is more than 5.5 scales, adjust R SUB on the menu so that the waveform level is 5.5 scales.
9. Perform the same adjustment from item 6 to 8 for G channel by TP202/G SUB (menu).



< Adjustment of Bch >

1. Set the OUT PUT SW to CAM OFF.
2. Set the iris to F8-1/4.
3. Adjust the "VAR" knob on the oscilloscope so that the level of the signal at the TP302 is 0.5 scale of the oscilloscope.
4. Aim at the halogen lamp directly. (Adjust the zoom lens so that the illumination of the lamp to fall to the whole screen.)
5. Set the iris to OPEN.
6. Adjust B SUB so that the peak level of the signal is 6 scales of the oscilloscope.



< Save the Adjustment Value >

To complete this adjustment, "Setting Value Saving" by the menu is necessary. Execute it according to the following procedure.

1. set the menu item as shown below, and restart (OFF ⇒ ON) the unit.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_H : FF
   ⇒ ADR_L : 08
   ⇒ WRITE : OFF ⇒ ON

<Save the Adjustment Value for High Gain>

1. Set the gain switch to "H" (+12 dB)
2. Set the value for SUB as follows.
   *** CAM DESIGN MENU ***
   <L DRIVE 1>
   ⇒ R SUB : A0
   ⇒ G SUB : A0
   ⇒ B SUB : B0
3. Input as follows.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_H : FF
   ⇒ ADR_L : 09
   ⇒ WRITE : OFF ⇒ ON
4. Set the Power switch to OFF and ON again.

2. CAMERA MAIN UNIT

2-1. Initial setting

Unless otherwise specified, implement the adjustment of the optical unit by the following setting.

< Lighting >
For the lighting source, use the halogen lamp of 3200K, 500W and set it to get 2000LUX evenly on the surface of object.

< Front Switch Setting >

AUTO W/B BAL : –
GAIN : L
AWB : PRST (PRESET)
OUTPUT : CAM OFF
SHUTTER : OFF
USER SW 1 : OFF

< Camera Setting >

Lens Extender : OFF
CC Filter : 3200K (B)
ND Filter : CLEAR (1)

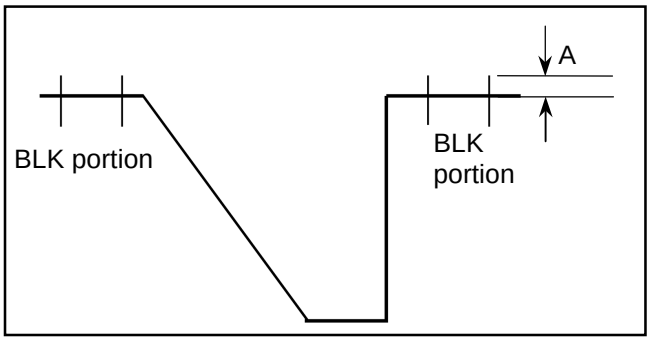
2-2. R, G, B TEST PED Adjustment

BOARD	PRE PROCESS (Use Extender board)
TP	TP102: R PED [PRE PROCESS Board] TP202: G PED [PRE PROCESS Board] TP302: B PED [PRE PROCESS Board]
ADJUST	Service Menu
F NUMBER	-----
MODE	TEST mode
CHART	-----
M. EQ	Oscilloscope
SPEC.	STEP A = 0 mV +/- 5mV p-p

< Menu >

*** CAM MAIN MENU 1 ***
<ROP>
⇒ MASTER PED
⇒ R PEDESTAL
⇒ G PEDESTAL
⇒ B PEDESTAL
<CAM DESIGN MENU>
⇒ PREPRO 2
⇒ M PED
<CAMERA SETTING>
⇒ TEST SAW

1. Set the TEST SAW to “ON".
2. Set the MASTER PED to “0".
3. Adjust R, G, B PEDESTAL so that the step A is within the specification at the each test point.



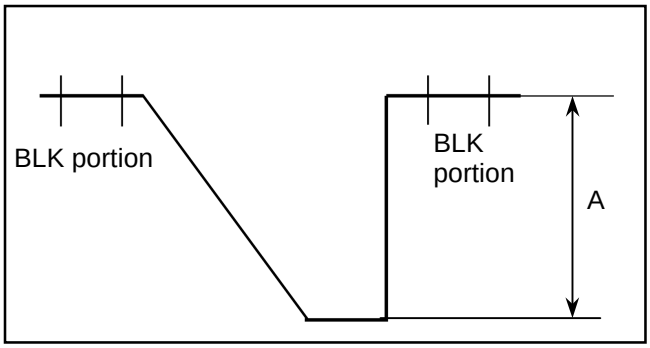
2-3. R, G, B Test Signal Level Adjustment

BOARD	PRE PROCESS (Use Extender board)
TP	TP102: R PED [PRE PROCESS Board] TP202: G PED [PRE PROCESS Board] TP302: B PED [PRE PROCESS Board]
ADJUST	VR403: TEST R VR402: TEST G VR401: TEST B
F NUMBER	-----
MODE	TEST Mode
CHART	-----
M. EQ	Oscilloscope
SPEC.	Level A = 1300 mV +/- 10mV p-p

< Menu >

*** CAM MAIN MENU 1 ***
<CAMERA SETTING>
⇒ TEST SAW

1. Set the TEST SAW to "ON".
2. Adjust VR403 so that the R level is within the specification at the TP102.
3. Adjust VR402 so that the G level is within the specification at the TP202.
4. Adjust VR401 so that the B level is within the specification at the TP302.



2-4. R, G, B AD Level Adjustment

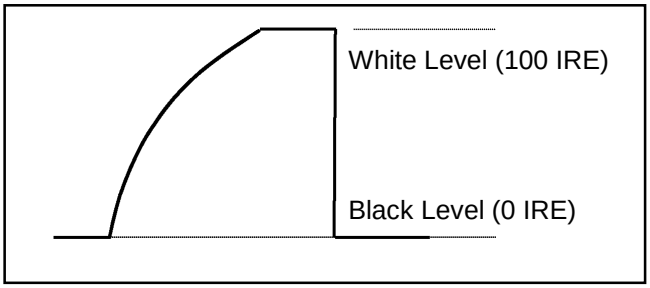
BOARD	DSP 3
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	-----
MODE	TEST Mode
CHART	-----
M. EQ	WFM
SPEC.	White Level A = 100 IRE +/- 1 IRE Black Level B = 0 IRE +/- 1 IRE

< Menu >

*** CAM MAIN MENU 1 ***
<KNEE/LEVEL>
⇒ MANUAL KNEE

*** CAMERA DESIGN MENU ***
<DSP D/A SET>
⇒ GAIN G ⇒ CPL G
⇒ GAIN B ⇒ CPL B
⇒ GAIN R ⇒ CPL R
<CAMERA SETTING>
⇒ TEST SAW

1. Set the MANUAL KNEE to “OFF" and TEST SAW to "ON".
2. Switch the OUTPUT SW to “Internal Color Bar” and confirm the signal level (white level) with WFM.
3. Switch the OUTPUT SW to “CAM OFF".
4. Set the WFM mode to be able to observe SDI signal as the R, G, B waveform.
5. Adjust CPL R, CPL G, CPL B so that the black level of the R, G, B signals is “0IRE".
6. Adjust GAIN R, GAIN G, GAIN B so that the white level of the R, G, B signals is 1IRE plus the level of the internal color bar signal which was observed at above item 2.
7. Adjust the black level again as shown in item 5, and confirm the level is within the specification.
8. If it is out of the specification, repeat item 5 and 6 to make it within the specification.
9. After adjustment, set the MANUAL KNEE to “ON".



2-5. R, G, B Pre Knee-point Adjustment

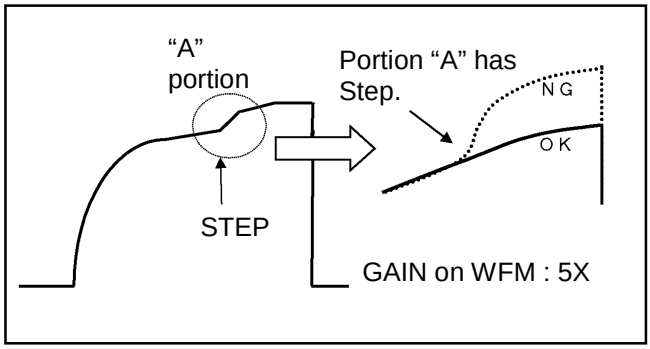
BOARD	PRE PROCESS
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
MODE	TEST Mode
CHART	-----
M. EQ	WFM
SPEC.	No step at portion A

< Menu >

*** CAM MAIN MENU1 ***
<KNEE/LEVEL>
⇒ KNEE POINT
⇒ KNEE SLOPE

*** CAM DESIGN MENU ***
<PREPRO2> <CAMERA SETTING>
⇒ G KNPT ⇒ TEST SAW
⇒ B KNPT
⇒ R KNPT

1. Confirm that the GAIN SW is set to “M : 6dB” and MANUAL KNEE is set to “ON".
2. Set the TEST SAW to "ON".
3. Set the WFM mode to be able to observe SDI signal as the R, G, B waveform.
4. Set the KNEE POINT to “95% → 80%", and KNEE SLOPE to “50 → 32".
5. Adjust G KNPT so that the Gch has no step. (Increase the value temporary to have the step appear point, then adjust.)
6. Adjust as above item 5 for Rch and Bch.
7. After adjustment, return the GAIN SW, KNEE POINT and KNEE SLOPE to original setting, and set the TEST SAW to “OFF".



2-6. 0 IRE PED Adjustment

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
MODE	-----
CHART	-----
M. EQ	WFM
SPEC.	PED = 0 IRE +/- 1 IRE

< Front Switch Setting >

GAIN : L (0dB)

< Menu >

*** CAM MAIN MENU1***

<ROP>

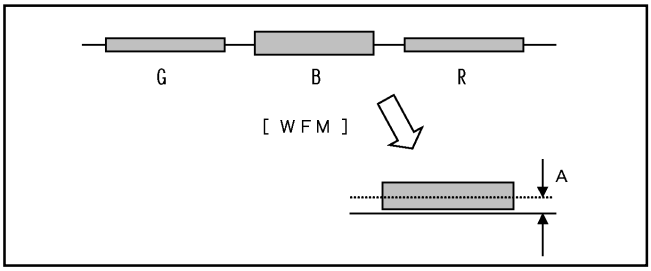
⇒ MASTER PED

*** CAM DESIGN MENU***

<PREPRO 2>

⇒ M PED

1. Execute the ABB.
2. Set the MASTER PED to “0".
3. Set the WFM mode to be able to observe the SDI signal as the R, G, B waveform.
4. Adjust M PED so that the pedestal level is within the specification.
5. After adjustment, set the MASTER PED to “+18".



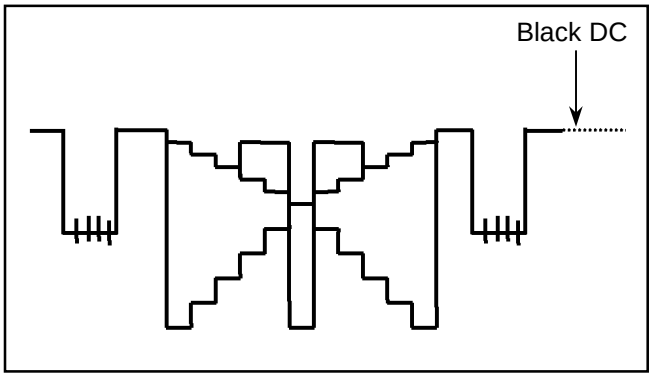
Note:

Adjust the black level with the center value of the noise.

2-7. R, G, B PRE AMP DC Adjustment

BOARD	PRE AMP, PRE PROCESS
TP	TP100: R DC [PRE PROCESS] TP200: G DC [PRE PROCESS] TP300: B DC [PRE PROCESS]
ADJUST	VR102: R DC [PRE AMP] VR202: G DC [PRE AMP] VR302: B DC [PRE AMP]
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	Oscilloscope
SPEC.	Black DC Level = 0 mV +/- 50 mV

1. Adjust VR102 so that the black DC level is within the specification at the TP100.
2. Adjust VR202 so that the black DC level is within the specification at the TP200.
3. Adjust VR302 so that the black DC level is within the specification at the TP300.

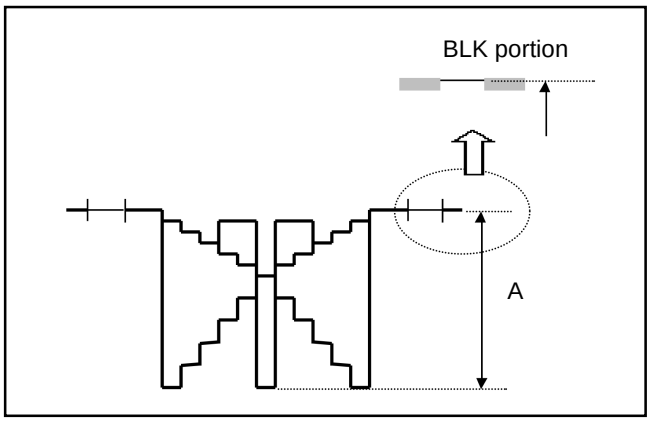


2-8. R, G, B PREPRO Level Adjustment (COARSE)

BOARD	PRE PROCESS (Use Extender board)
TP	TP102: R LEV [PRE PROCESS] TP202: G LEV [PRE PROCESS] TP302: B LEV [PRE PROCESS]
ADJUST	VR101: R LEV VR201: G LEV VR301: B LEV
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	Oscilloscope
SPEC.	Level A = 1300 mV +/- 20 mV p-p

1. Adjust VR101 so that the R level is within the specification at the TP102.
2. Adjust VR201 so that the G level is within the specification at the TP202.
3. Adjust VR301 so that the B level is within the specification at the TP302.

Note:
Adjust between white peak level and BLK portion.



2-9. R, G, B PED TRACK Adjustment

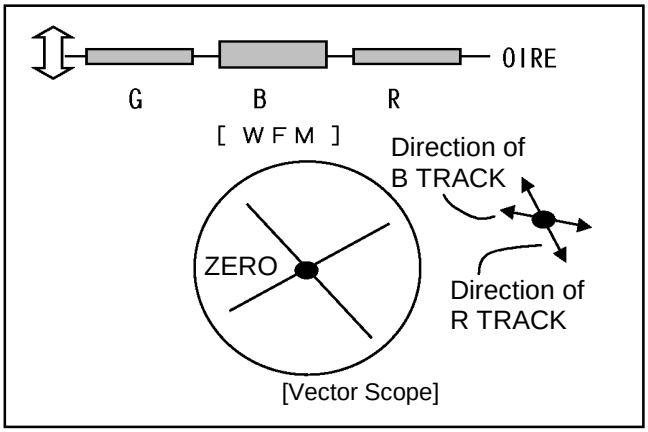
BOARD	PRE PROCESS
TP	SDI OUT 75ohm termination
ADJUST	VR404: R TRACK VR405: B TRACK, and Service Menu
F NUMBER	CLOSE
MODE	-----
CHART	-----
M. EQ	WFM, Vector Scope
SPEC.	Vector dot at the zero point.

< Menu >

*** CAM MAIN MENU 1 ***
<ROP>
⇒ MASTER PED ⇒ B PEDESTAL
⇒ R PEDESTAL
⇒ G PEDESTAL

*** CAM DESIGN MENU ***
<PREPRO 2>
⇒ M PED

1. Set the MASTER PED, R PEDESTAL, G PEDESTAL and B PEDESTAL to “0 (zero)", and execute the ABB.
2. Set the WFM mode to be able to observe the SDI signal as the R, G, B waveform.
3. Adjust M PED to be “0IRE” with the WFM, and confirm that the dot is located at the zero point in the vector mode.
4. Set the MASTER PED to “18" and execute the ABB.
5. Adjust VR404 (R TRACK) and VR405 (B TRACK) to be within the specification.
6. Set the MASTER PED to “0" and confirm that the vector dot is located at the zero point.
7. In case the dot is not at the zero point, adjust item 5 to 7 repeatedly.
8. After adjustment, set the MASTER PED to “+18".

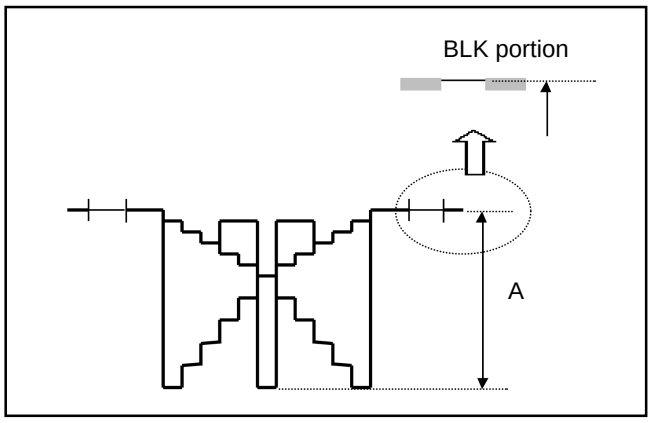


2-10. R, G, B PREPRO Level Adjustment (FINE)

BOARD	PRE PROCESS (Use Extender board)
TP	TP102: R LEV [PRE PROCESS] TP202: G LEV [PRE PROCESS] TP302: B LEV [PRE PROCESS]
ADJUST	VR101: R LEV VR201: G LEV VR301: B LEV
F NUMBER	F11-1/2 (2000LUX)
MODE	-----
CHART	Gray Scale Chart
M. EQ	Oscilloscope
SPEC.	Level A = 1300 mV +/- 10 mV p-p

1. Adjust VR101 so that the R level is within the specification at the TP102.
2. Adjust VR201 so that the G level is within the specification at the TP202.
3. Adjust VR301 so that the B level is within the specification at the TP302.

Note:
Adjust between white peak level and BLK portion.



2-11. Confirmation of the Modulation Factor

BOARD	-----
TP	SDI OUT (Y OUT) 75ohm termination
ADJUST	Service Menu
F NUMBER	F5.6
MODE	-----
CHART	Immega Cycle Chart (For HD)
M. EQ	Color Monitor TV, WFM
SPEC.	Modulation Factor (18.0MHz) A = more than 45%

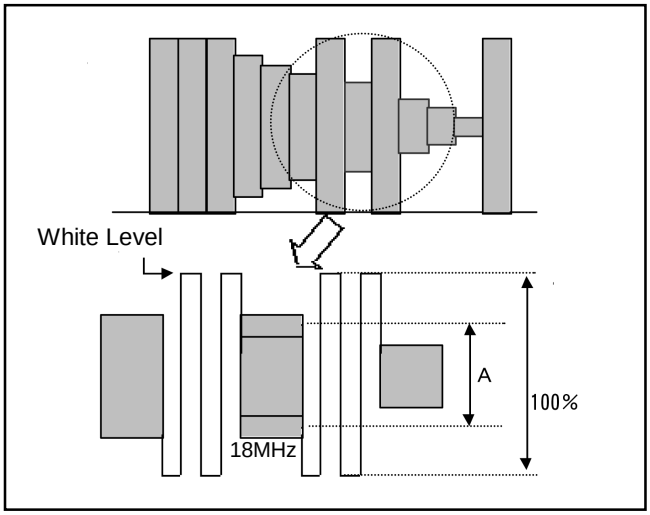
< Front Switch Setting >

AWB :A
OUTPUT :CAM ON
ND Filter :1/16ND (3)

< Menu >

*** CAM MAIN MENU 1 ***
<CAMERA SETTING>
⇒ DETAIL
⇒ GAMMA

1. Set the GAMMA to “OFF", and DETAIL to “OFF".
2. Aim at the immega cycle chart to be full picture of the monitor.
3. Adjust iris so that the white level of Y signal is 70%, and execute the AWB → ABB.
4. Adjust iris again, and execute the AWB.
5. Set the iris to F5.6 and confirm that the modulation A is within the specification. (Level : white level = 80%)
6. Set the GAMMA, DETAIL and ND filter to original setting.



2-12. R, G, B W/S Offset Adjustment (1)

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	-----
MODE	-----
CHART	Special Light Box (Spherical Type)
M. EQ	Color Monitor TV, WFM
SPEC.	WFM : The waveform is flat at the H rate. Monitor : No color shading

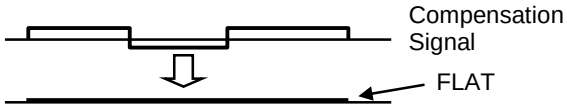
< Switch Setting >

AUTO W/B BAL : ABB
GAIN : L (0 dB)
OUTPUT : CAM ON

< Menu >

*** CAM MAIN MENU 4 ***
<WHITE SHADING>
⇒ CORRECT
*** CAM SERVICE MENU ***
<WHITE SHADING>
⇒ DETECTION (DIG)
*** CAM DESIGN MENU ***
<PREPRO 1>
⇒ G_WS_OFFSET
⇒ B_WS_OFFSET
⇒ R_WS_OFFSET

1. Aim at the open portion of light box at about 1/4 size of the whole screen.
2. Execute the ABB.
3. Set the CORRECT of the WHITE SHADING page to "ON", and execute the DETECTION (DIG).
4. Set the iris to CLOSE and confirm that the compensation waveform appears on black signal portion. Adjusts G_WS_OFFSET, B_WS_OFFSET and R_WS_OFFSET so that the monitor screen condition has no shading.
5. Set the menu item as follows and turn OFF → ON the power of the unit.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_L : 03
   ⇒ ADR_H : FF
   ⇒ WRITE : OFF → ON



[WFM (RGB) : H Rate]

2-13. R, G, B W/S Offset Adjustment (2)

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
MODE	-----
CHART	Special Light Box (Spherical Type)
M. EQ	Color Monitor TV, WFM
SPEC.	WFM : The waveform is flat at the H rate. Monitor : No color shading.

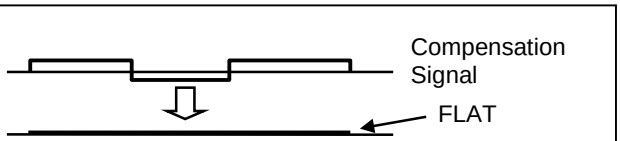
< Switch Setting >

AUTO W/B BAL : ABB
GAIN : M
AWB : A
OUTPUT : CAM ON

<Menu >

*** CAM DESIGN MENU ***
<PREPRO 1>
⇒ G_WS_OFFSET
⇒ B_WS_OFFSET
⇒ R_WS_OFFSET
*** CAM DESIGN MENU ***
<LSI REG SET1>
⇒ ADR H
⇒ ADR L
⇒ WRITE

1. Aim at the open portion of light box at about 1/4 size of the whole screen.
2. Set the MASTER GAIN item of the Mid SETTING page to “6dB”.
3. Execute the ABB.
4. Set the CORRECT of the WHITE SHADING page to "ON", and execute the DETECTION (DIG).
5. Set the iris to CLOSE and confirm that the compensation waveform appears on black signal portion. Adjusts G_WS_OFFSET, B_WS_OFFSET and R_WS_OFFSET so that the monitor screen condition has no shading.
6. Return the MASTER GAIN of the LOW SETTING page to original setting.
7. Set the menu item as follows and turn OFF → ON the power of the unit.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_L : 04
   ⇒ ADR_H : FF
   ⇒ WRITE : OFF → ON



[WFM (RGB) : H Rate]

2-14. R, G, B W/S Offset Adjustment (3)

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
MODE	-----
CHART	Special Light Box (Spherical Type)
M. EQ	Color Monitor TV, WFM
SPEC.	WFM : The waveform is flat at the H rate. Monitor : No color shading

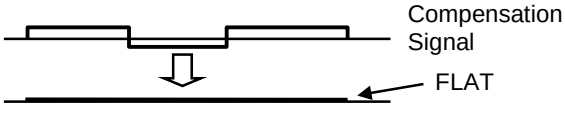
< Switch Setting >

AUTO W/B BAL : ABB
GAIN : H
AWB : A
OUTPUT : CAM ON

<Menu >

*** CAM DESIGN MENU ***
<PREPRO 1>
⇒ G_WS_OFFSET
⇒ B_WS_OFFSET
⇒ R_WS_OFFSET
*** CAM DESIGN MENU ***
<LSI REG SET1>
⇒ ADR H
⇒ ADR L
⇒ WRITE

1. Aim at the open portion of light box at about 1/4 size of the whole screen.
2. Set the MASTER GAIN item of the High SETTING page to “18dB”.
3. Execute the ABB.
4. Set the CORRECT of the WHITE SHADING page to "ON", and execute the DETECTION (DIG).
5. Set the iris to CLOSE and confirm that the compensation waveform appears on black signal portion. Adjusts G_WS_OFFSET, B_WS_OFFSET and R_WS_OFFSET so that the monitor screen condition has no shading.
6. Return the MASTER GAIN of the LOW SETTING page to original setting.
7. Set the menu item as follows and turn OFF → ON the power of the unit.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_L : 06
   ⇒ ADR_H : FF
   ⇒ WRITE : OFF → ON



[WFM (RGB) : H Rate]

2-15. R, G, B W/S Offset Adjustment (4)

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
MODE	-----
CHART	Special Light Box (Spherical Type)
M. EQ	Color Monitor TV, WFM
SPEC.	WFM : The waveform is flat at the H rate. Monitor : No color shading

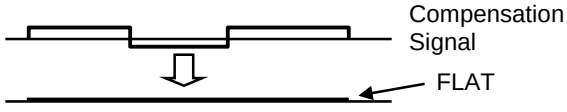
< Switch Setting >

AUTO W/B BAL : ABB
AWB : A
OUTPUT : CAM ON
USER SW1 : ON (Super Gain ON)

<Menu >

*** CAM DESIGN MENU ***
<PREPRO 1>
⇒ G_WS_OFFSET
⇒ B_WS_OFFSET
⇒ R_WS_OFFSET

1. Aim at the open portion of light box at about 1/4 size of the whole screen.
2. Set menu items as shown below.
   *** CAM MAIN MENU 2 ***
   <SUPER GAIN>
   ⇒ S. GAIN VALUE: 30 dB
   <CAMERA SW MODE>
   ⇒ USER 1 SW: S. GAIN
3. Execute the ABB.
4. Set the CORRECT of the WHITE SHADING page to "ON", and execute the DETECTION (DIG).
5. Set the iris to CLOSE and confirm that the compensation waveform appears on black signal portion. Adjusts G_WS_OFFSET, B_WS_OFFSET and R_WS_OFFSET so that the monitor screen condition has no shading.
6. Set the menu item as follows, and turn OFF → ON the power of the unit.
   *** CAM DESIGN MENU ***
   <LSI REG SET1>
   ⇒ ADR_L : 06
   ⇒ ADR_H : FF
   ⇒ WRITE : OFF → ON



[WFM (RGB) : H Rate]

2-16. Digital White Shading Adjustment

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	-----
MODE	-----
CHART	Special Light Box (Spherical Type)
M. EQ	Color Monitor TV, WFM, Vector Scope
SPEC.	WFM : RGB waveform is flat at the H/V rate. Vector Scope : Vector dot is true circle. Monitor : stable brightness, no color shading

< Switch Setting >

AUTO W/B BAL : AWB,ABB
AWB : A
OUTPUT : CAM ON

< Menu >

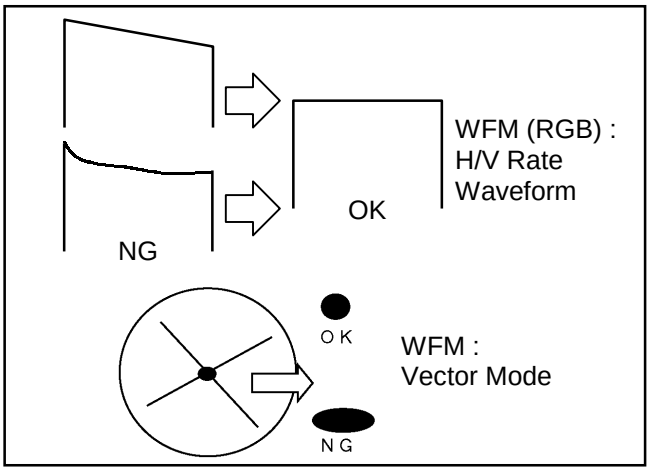
*** CAM SERVICE MENU ***
<WHITE SHADING>
⇒ DETECTION (DIGITAL)

< Adjustment at the Lens Extender 1x >

1. Change the setting of lens extender to "1x".
2. Aim at the open portion of the light box in the whole screen.
   (Zoom pos. : about 60, Focus : fully ∞ direction)
3. Execute the ABB.
4. Adjust iris so that the Gch level of SDI OUT is 70%, and then execute the AWB → ABB.
5. Repeat item 4.
6. Execute the DETECTION (DIG) on the menu item.

< Adjustment at the Lens Extender 2x >

1. Change the setting of lens extender to "2x".
2. Aim at the open portion of the light box in the whole screen.
   (Zoom pos. : about 60, Focus : fully ∞ direction)
3. Execute the ABB.
4. Adjust iris so that the Gch level of SDI OUT is 70%, and execute the AWB → ABB.
5. Repeats item 3.
6. Execute the DETECTION (DIG) on the menu item.



2-17. Digital Dark Shading Adjustment

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	CLOSE
M. EQ	The color monitor TV, WFM, the vector scope
SPEC.	WFM : RGB waveform is flat at the H/V rate. Vector Scope : Vector dot is true circle. Monitor : stable brightness, no color shading

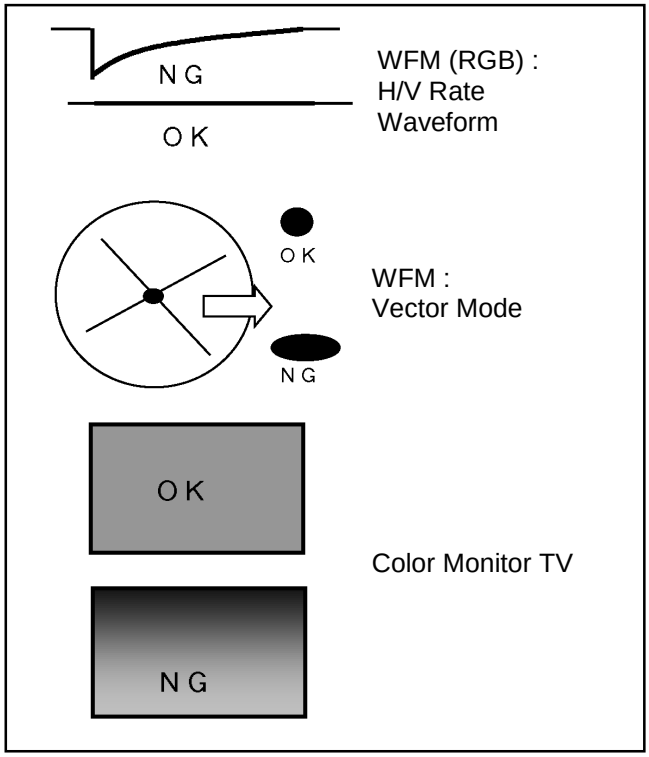
< Front Switch Setting >

AUTO W/B BAL : ABB
GAIN : H (+12 dB)
OUTPUT : CAM ON

< Menu to Use >

*** CAM MAIN MENU 4 ***
<BLACK SHADING>
⇒ DETECTION
⇒ CORRECT (DIG)

1. Set the Iris to close.
2. Execute the ABB.
3. Set the CORRECT (DIG) of the BLACK SHADING page to “ON”.
4. Execute the DETECTION of the BLACK SHADING page, and confirm that each items are within the specification.



2-18. Flare Adjustment

BOARD	-----
TP	SDI OUT 75ohm termination
ADJUST	Service Menu
F NUMBER	As shown below
MODE	-----
CHART	Flare Chart
M. EQ	WFM
SPEC.	Adjust the black level of R, G and B. (as shown below)

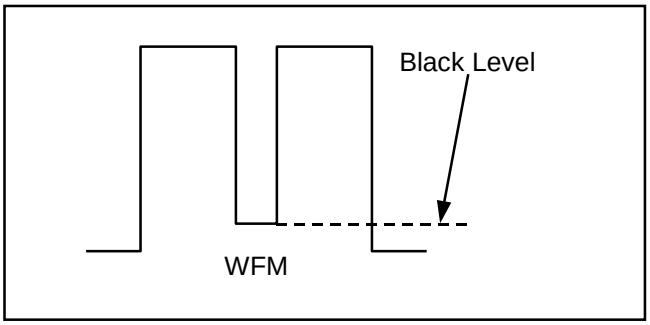
< Front Switch Setting >

AUTO W/B BAL : AWB, ABB
OUTPUT : CAM ON

< Menu >

*** CAM MAIN MENU 4 ***
<FLARE>
⇒ R FLARE
⇒ G FLARE
⇒ B FLARE

1. Execute the ABB and adjust iris so that the Y output of SDI OUT is 70%, and execute the AWB.
2. Adjust iris to become 100% level and close iris only the 1.5 stop.
3. Confirm the channel which shows the lowest BLACK level and adjust R FLARE, G FLARE and/or B FLARE so that BLACK level of other channel meet the lowest one.



2-19. R, B GAMMA Adjustment

BOARD	PRE PROCESS
TP	SDI OUT 75ohm termination
ADJUST	Service Menu VR101 : R LEV [PRE PROCESS] VR501 : B LEV [PRE PROCESS]
F NUMBER	-----
MODE	-----
CHART	Gray Scale Chart
M. EQ	WFM, Vector Scope
SPEC.	1. Rch, Bch peak level = Gch peak level 2. Vector dot : No split & placed at zero point

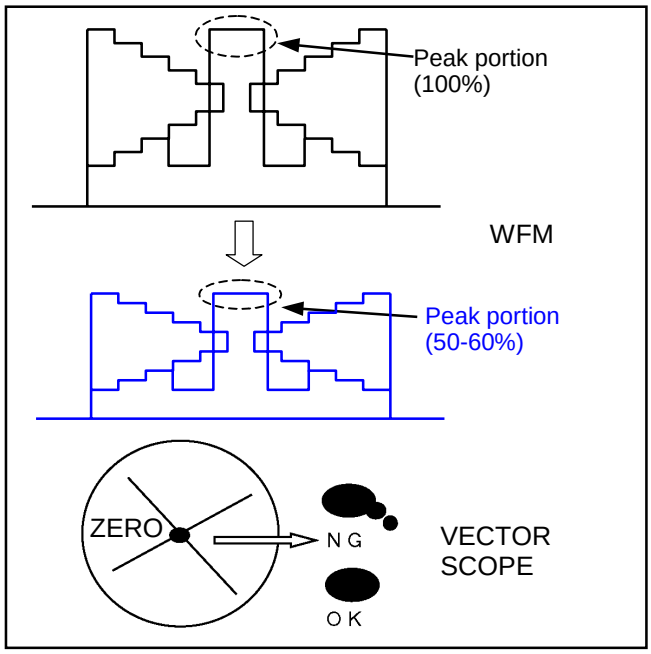
< Front Switch Setting >

AUTO W/B BAL : ABB
OUTPUT : CAM ON

< Menu to Use >

*** CAM SERVICE MENU ***
<SERVICE ADJ>
⇒ R GAMMA (SERV)
⇒ B GAMMA (SERV)

1. Execute the ABB, and confirm the R,G,B vector dots are located at zero point by closing the iris.
3. Adjust iris so that the Gch level is 100%, and confirm that the iris value is F8+/-1/2. At this time, if Rch and Bch level is not 100%, adjust VR101(R) and VR501(B) on the PRE PROCESS P.C.Board so that the level is 100%.
4. Adjust iris so that the Gch level is 50-60%.
5. Indicate the R, G and B waveform overlaid in WFM, and confirm that the level difference at the peak portion of the waveform.
6. Adjust R GAMMA and B GAMMA so that the level differences disappear against Gch.
7. Confirm with vector scope that the vector dot of each R, G and B color is located at the zero point and doesn't split.



2-20. ND Compensation Adjustment

BOARD	-----
TP	SDI OUT 75 ohm termination
ADJUST	Design Menu
F NUMBER	-----
MODE	-----
CHART	White Chart (10000LUX to 15000LUX)
M. EQ	Vector Scope, Color Monitor TV
SPEC.	Vector : Vector dot at the zero point. Monitor : Stable brightness, No Color shading on

< Front Switch Setting >

OUTPUT : CAM ON

SHUTTER : 1/500

< Menu >

*** MAIN MENU 1 ***

<CAMERA SETTING>

⇒ D4300K

<ROP>

⇒ R GAIN, BGAIN

*** CAM DESIGN MENU ***

<ND COMPENSATION>

POSITION1 R, B (ND1: For CLEAR)

POSITION2 R, B (ND2: For 1/4ND)

POSITION3 R, B (ND3: For 1/16ND)

POSITION4 R, B (ND4: For 1/64ND

<Preparation>

1. Set menu item and CC Filter as follows.
   D4300K: OFF
   CC Filter: B

<Adjustment for ND Position 1>

2. Set the ND filter as follows.
   ND Filter: 1

3. Adjust iris so that the white level of signal is 60%, and execute the AWB → ABB. Adjust iris again, and execute the AWB.
4. Adjust POSITION1 R and POSITION1 B so that the vector dots are within the specification.
5. Set the D4300K to "ON", and then turn OFF → ON the power of the unit.

<Adjustment for ND Position 2 >

6. Set the ND filter as follows.
   ND Filter: 2
7. Adjust iris so that the white level of the signal is 60%, and execute the AWB → ABB. Adjust iris again, and execute the AWB.
8. Adjust POSITION2 R and POSITION2 B so that the vector dots are within the specification.
9. Set the D4300K to "ON", and then turn OFF → ON the power of the unit.

<Adjustment for ND Position 3>

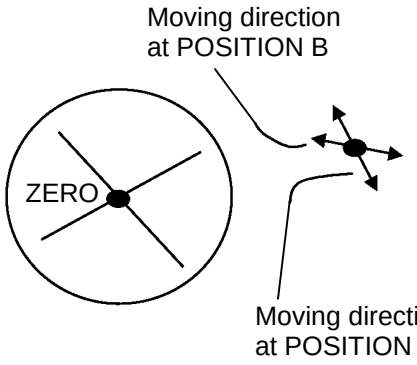
10. Set the ND filter as follows.
    ND Filter: 3

11. Adjust iris so that the white level of the signal is 60%, and execute the AWB → ABB. Adjust iris again, and execute the AWB.
12. Adjust POSITION3 R and POSITION3 B so that the vector dots are within the specification.
13. Set the D4300K to "ON", and then turn OFF → ON the power of the unit.

<Adjustment for ND Position 4>

14. Set the ND filter as follows.
    ND Filter: 4

15. Adjust iris so that the white level of the signal is 60%, and execute the AWB → ABB. Adjust iris again, and execute the AWB.
16. Adjust POSITION4 R and POSITION4 B so that the vector dots are within the specification.
17. Set the D4300K to "ON", and then turn OFF → ON the power of the unit.



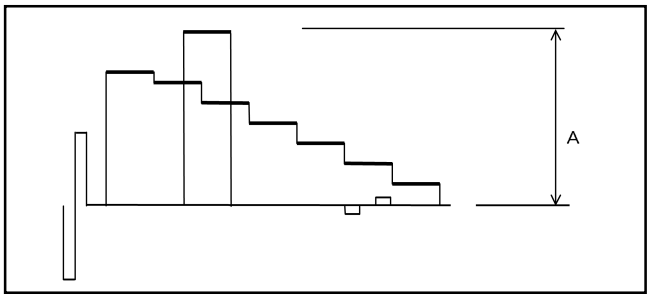
[VECTOR SCOPE] (5x mode)

3. VIDEO OUT

3-1. VF Y Output Adjustment

BOARD	VODEO OUT
TP	TP14 (VIDEO OUT)
ADJUST	VR8
F NUMBER	-----
MODE	-----
CHART	-----
M. EQ	Oscilloscope
SPEC.	A = 700 mV +/- 15 mV

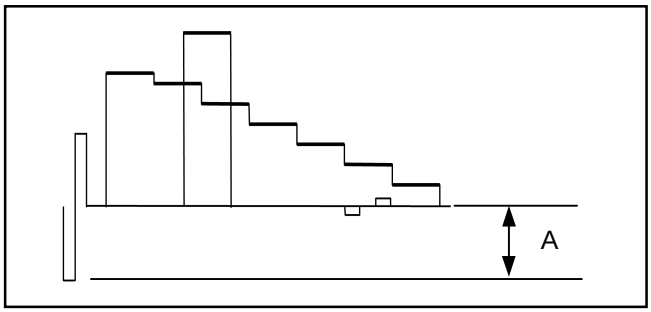
1. Set the internal color bar to “ON”, and adjust VR8 so that the level A is within the specification.



3-2. DA SYNC Output Level Adjustment

BOARD	VIDEO OUT
TP	TP14
ADJUST	VR11
F NUMBER	-----
MODE	-----
CHART	-----
M. EQ	Oscilloscope
SPEC.	A = 300 mV +/- 15 mV

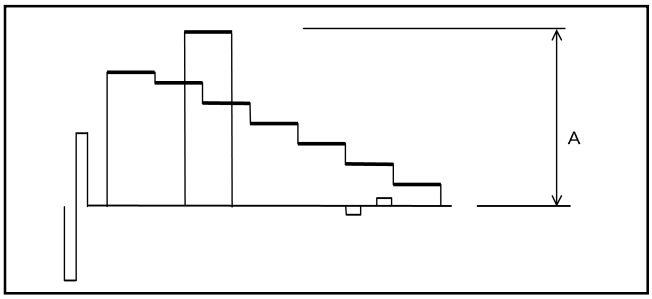
1. Set the internal color bar to “ON”.
2. Adjust VR11 so that the level A is within the specification.



3-3. VTR Playback Output Level Adjustment

BOARD	VIDEO OUT
TP	TP14
ADJUST	VR9
F NUMBER	-----
MODE	-----
CHART	-----
M. EQ	Oscilloscope
SPEC.	A = 700 mV +/- 15 mV

1. Record Color-bars signal with VTR.
2. PLAY the color bar signal with built-in VTR, and adjust VR9 so that the level A is within the specification.

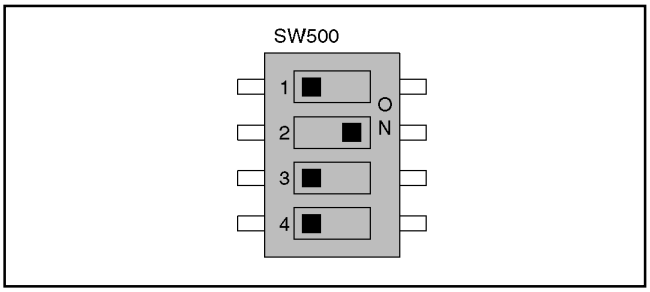


< VTR >

4. VTR SYSCON

4-1. Initial Setting of DIP SW (Release Data Saving Prohibition)

1. Turn OFF the power supply of main unit and set the DIP SW on the VTR SYSCON P.C.Board as shown below.
   SW6500-2pin (SW500) : OFF → ON



2. Be sure to perform this setting at the first step of entire processes to change adjustment value with internal menu on VTR (VTR SERVICE MENU).
3. If this SW is set to the "OFF" position, the adjustment value won't be saved to EEPROM.
4. Under data saving prohibit mode, if a page in VTR SERVICE MENU is opened, "INH" (Meaning of INHIBIT) mark is displayed on the upper right of the monitor screen of SDI OUT.

5. POWER

5-1. Confirmation of the Voltage

Item	TP	SPEC.
2.7V confirmation	TP6	2.75+/-0.1V
3.0V confirmation	TP2	3.15+/-0.1V
3.6V confirmation	TP7	3.6+/-0.1V
5.0V confirmation	TP10	5.0+/-0.1V
5.6V confirmation	TP8	5.65+/-0.10V
9.0V confirmation	TP13	9.05+/-0.10V
-5.0V confirmation	TP11	-5.15+/-0.10V
13.0V confirmation	TP4	13.1+/-0.2V
-13.0V confirmation	TP5	-13.1+/-0.2V
48.0V confirmation	TP3	48.0+/-4.0V
17.0V confirmation	TP14	15.30+/-0.40V
-11.0V confirmation	TP15	-10.50+/-0.40V

GND : TG1 (VTR MOTHER P.C.Board)

6. SERVO

6-1. T and S Reel Torque Offset Adjustment

BOARD	SERVO
TP	TP302 (T Reel), TP301 (S Reel), TG300 (GND)
ADJUST	VR501 (T Reel), VR502 (S Reel)
MODE	Adjustment Mode
M. EQ	Digital Volt Meter
SPEC.	27 mV +/- 2 mV

< Menu >

*** VTR SERVICE MENU ***
<VTR SERVICE 2/3>
⇒ T TORQUE
⇒ S TORQUE

< T Reel Torque Offset Adjustment >

1. Without inserting a tape, perform carriage-down then open the MENU and select the T-reel torque adjusting mode. (When the adjusting mode is selected the automatic loading process starts and the T-reel rotates.)
2. Lock the T reel motor by hand and adjust VR501 so that the voltage of TP302 is within the specification.

< S Reel Torque Offset Adjustment >

3. Without inserting a tape, perform carriage-down then open the MENU and select the S-reel torque adjusting mode. (When the adjusting mode is selected, the automatic loading process starts and the T-reel rotates.)
4. Lock the T reel motor by hand and adjust VR502 so that the voltage of TP301 is within the specification.

5. After adjustment, disengage the adjusting mode.

< Note >

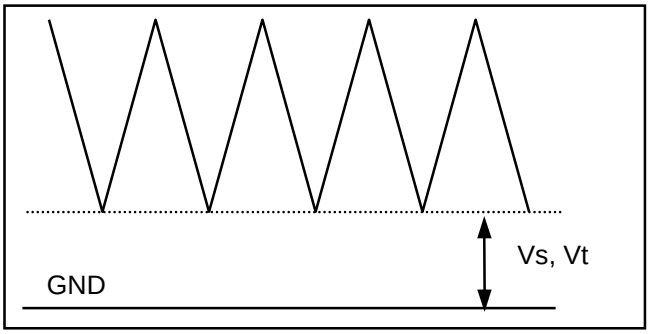
After adjusting T/S Reel Torque, turn OFF/ON the power supply.

6-2. Adjustment of the Tape Beginning and End Detection Sensitivity

BOARD	SERVO
TP	TP503 : Vs, TP504 : Vt
ADJUST	VR503 : S PHOTO, VR504 : T PHOTO
INPUT	-----
MODE	STOP
TAPE	Tape Beg./End Detection Cassette (VFK1339KL)
M. EQ	Oscilloscope
SPEC.	Vs, Vt = 3.2V +/- 0.8V

1. Insert the Tape Beg./End Detection Cassette.
2. Adjust VR503 so that the Vs voltage of TP503 is within the specification.
3. Adjust VR504 so that the Vt voltage of TP504 is within the specification.

<Note>
Since VTR gets into EJECT mode after the cassette insertion, press the cassette not to eject and implement this adjustment.



6-3. CTL AMP Offset Voltage Adjustment

BOARD	SERVO
TP	TP901
ADJUST	VR950
MODE	REC-PAUSE
M. EQ	Digital Volt Meter
SPEC.	0 mV +/- 50 mV

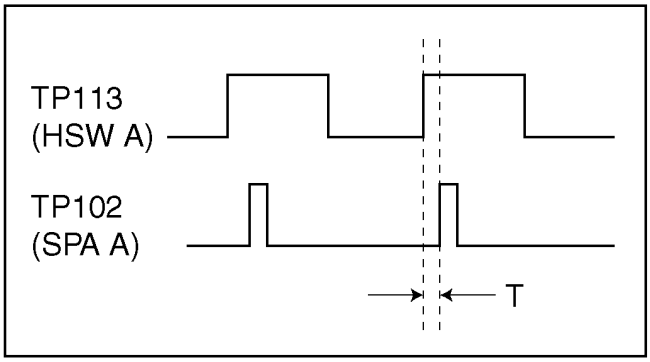
1. Adjust VR950 so that the voltage of TP901 is within the specification.

6-4. PG Shifter Adjustment and Confirmation

BOARD	SERVO
TP	TP113 (HSW A), TP102 (SPA A), TP114 (HSW C), TP103 (SPA C)
ADJUST	SERVICE MENU : PG SHIFT 100
INPUT	-----
MODE	STOP
TAPE	Alignment Tape (VFM3580KL)
M. EQ	Oscilloscope
SPEC.	T = 126.69μs +/- 2.5μs

< Menu >
*** VTR SERVICE MENU ***
<VTR SERVICE 2/3>
⇒ PG SHIFT 100

1. Insert the alignment tape (VFM3580KL).
2. Connect the oscilloscope to TP113, TP102.
3. Open SERVICE MENU and select "PG SHIFT 100" to activate the PG adjusting mode. (At this time, the unit play the tape and execute the PG SHIFTER adjustment automatically.)
4. After adjustment, press STOP button.
5. Confirm that T is within the specification.
6. Perform above measurement 3 to 5 for the test point of TP114, TP103 to make sure that the results are within the specification.

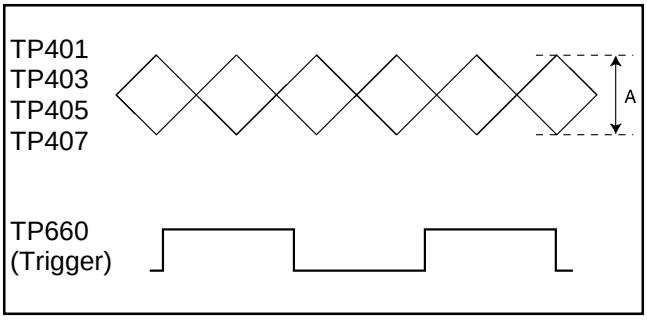


7. RF EQ

7-1. DRC Input Level Adjustment

BOARD	RFEQ
TP	TP401, TP403, TP405, TP407, TP660 (Trigger)
ADJUST	VR401, VR403, VR405, VR407
INPUT	Internal Color Bar
MODE	STILL
TAPE	Alignment Tape (VFM3580KL)
M. EQ	Oscilloscope
SPEC.	A = 500 mV +/- 50 mVp-p

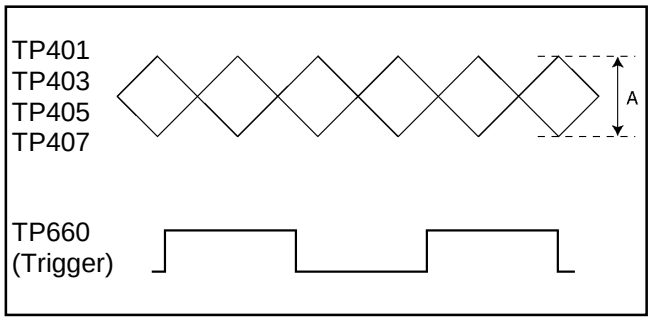
1. Adjust VR401 so that the level A is within the specification at TP401.
2. Adjust VR403 so that the level A is within the specification at TP403.
3. Adjust VR405 so that the level A is within the specification at TP405.
4. Adjust VR407 so that the level A is within the specification at TP407.



7-2. ATF Input Level Adjustment

BOARD	RFEQ
TP	TP400, TP402, TP404, TP406, TP660 (Trigger)
ADJUST	VR400, VR402, VR404, VR406
INPUT	Internal Color Bar
MODE	STILL
TAPE	Alignment Tape (VFM3580KL)
M. EQ	Oscilloscope
SPEC.	A = 500 mV +/- 100 mVp-p

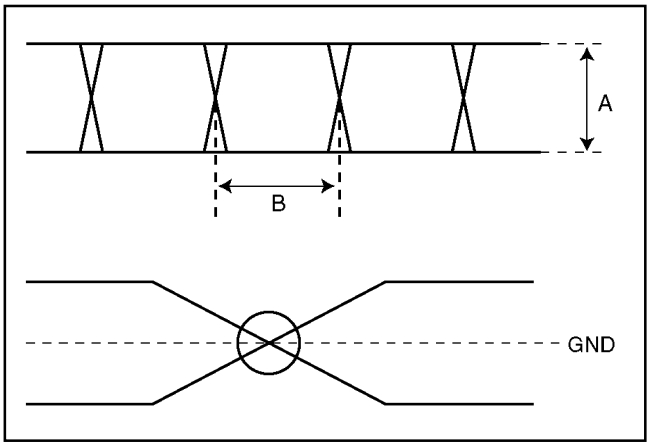
1. Adjust VR400 so that the level A is within the specification at TP400.
2. Adjust the VR402 so that the level A is within the specification at TP402.
3. Adjust VR404 so that the level A is within the specification at TP404.
4. Adjust VR406 so that the level A is within the specification at TP406.



7-3. HSE Input Adjustment

BOARD	RFEQ
TP	TP820, TP821, TP822, TP823, TP660 (Trigger)
ADJUST	VR820, VR821, VR822, VR823
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M. EQ	Oscilloscope
SPEC.	A = 1.5V +/- 0.5 Vp-p B = 24nS +/-3 The nS

1. Insert a Blank Tape and press the REC button.
2. Confirm that the A and B in following figure are within the specification at each test point and then also signal disappears when it is in REC PAUSE mode.
3. During the recording mode, magnify the time range of oscilloscope, observe the waveform in the AC mode referring to the GND level and adjust VR820, VR821, VR822 and VR823 so that the crossing point of rising and falling sections of the waveform as shown below can be located on the GND level.



7-4. PLAY Error Rate Confirmation (Manual Adjustment)

BOARD	RFEQ
TP	LCD
INPUT	Internal Color Bar
MODE	PLAY
TAPE	Alignment Tape (VFM3580KL)
M. EQ	Monitor TV
SPEC.	Error Rate = Less than 10 scales (VITERBI ON)

< Menu >

*** VTR SERVICE MENU ***
<VTR SERVICE 1/3>
⇒ VITERBI
⇒ BER ADJ
⇒ BER SPEED

1. Open the SERVICE MENU, and set the item as follows.
   BER ADJ : L1L3
   BER SPEED : SLOW
   VITERBI : ON
2. Play the alignment tape and check that the error rate is within the specification.
3. Confirm the error rate of all heads (total 8 units) by switching the BER ADJ to the order of R1R3, L2L4 and R2R4.

7-5. REC Signal Detection System Position Adjustment

BOARD	RFEQ
TP	IC104-5PIN, TP102
ADJUST	VR108
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M. EQ	Oscilloscope
SPEC.	C = 5 uS -0/+3uS

< Menu >

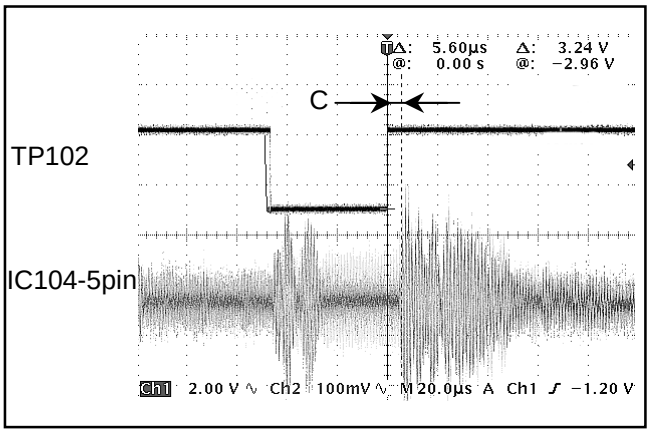
*** VTR SERVICE MENU ***

<VTR SERVICE 1/3>

⇒ RDS REC ADJ

⇒ RDS TYPE

1. Set the time range of the oscilloscope to 20uS/DIV.
2. Open the SERVICE MENU and set the item as follows.
   RDS REC ADJ : L
   RDS TYPE : REC
3. Adjust VR108 so that the timing C of signal is within the specification.



7-6. REC Signal Detection System Level Adjustment

BOARD	RFEQ
TP	TP100, TP102 Trigger (TP660 : L1L3, TP661 : R1R3, TP662 : L2L4, TP663 : R2R4)
ADJUST	VR101 : L1, VR100 : L3, VR103 : R1, VR102 : R3, VR105 : L2, VR104 : L4, VR107 : R2, VR106 : R4
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M. EQ	Oscilloscope (Time range : 20uS/DIV)
SPEC.	See below

< Menu >

*** VTR SERVICE MENU ***

<VTR SERVICE 1/3>

⇒ RDS REC ADJ

<VTR D/A DATA>

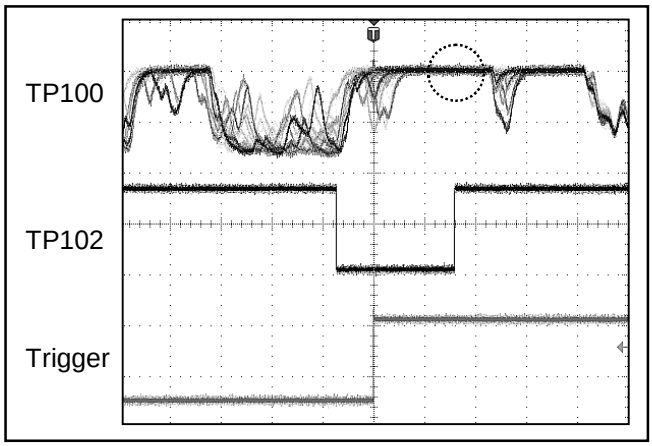
⇒ ADJUST ADDRESS (01) to (08)

⇒ ADJUST DATA

1. Confirm that the value of each items from ADR [01] to [08] in the VTR D/A DATA page are “BB".

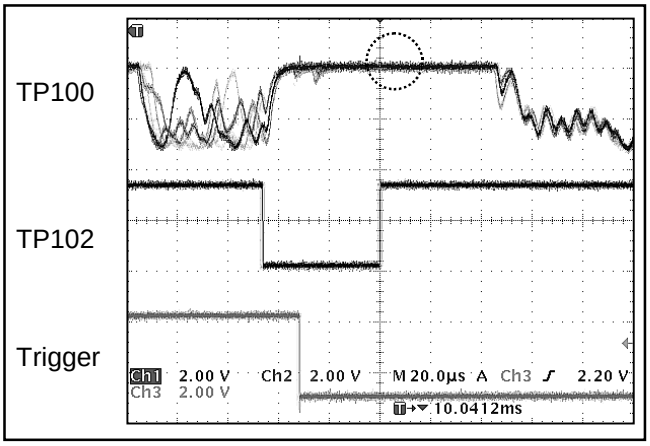
< Adjustment of the L1L3 Head >

1. Connect the Oscilloscope to TP100, TP102 and TP660 (trigger).
2. Switch the item RDS. REC ADJ to "L1".
3. Adjust VR101 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.
4. Switch the item RDS. REC ADJ to "L3".
5. Adjust VR100 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.



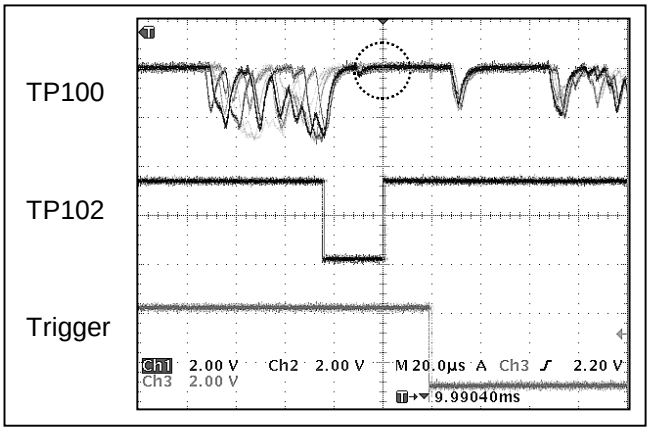
< Adjustment of the R1R3 Head >

1. Connect the Oscilloscope to TP100, TP102 and TP660 (trigger).
2. Switch the item RDS. REC ADJ to "R1".
3. Adjust VR103 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.
4. Switch the item RDS. REC ADJ to "R3".
5. Adjust VR102 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.



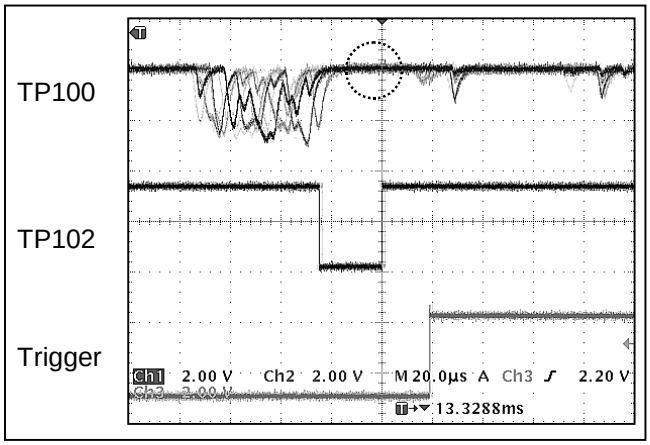
< Adjustment of the L2L4 Head >

1. Connect the Oscilloscope to TP100, TP102 and TP660 (trigger).
2. Switch the item RDS. REC ADJ to "L2".
3. Adjust VR105 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.
4. Switch the item RDS. REC ADJ to "L4".
5. Adjust VR104 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.



< Adjustment of the R2R4 Head >

1. Connect the Oscilloscope to TP100, TP102 and TP660 (trigger).
2. Switch the item RDS. REC ADJ to "R2".
3. Adjust VR107 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.
4. Switch the item RDS. REC ADJ to "R4".
5. Adjust VR106 so that the signal at TP100 is flat (no fluctuation) at the rising edge timing of TP102.



7-7. REC Signal Detection System Operation Confirmation

BOARD	RFEQ
TP	LCD
ADJUST	EVR : For REC CUR [ADR : 1D], [ADR : 1E], [ADR : 1F], [ADR : 20], [ADR : 21], [ADR : 22], [ADR : 23], [ADR : 24]
INPUT	Internal Color Bar
MODE	REC
TAPE	Blank Tape
M. EQ	Oscilloscope
SPEC.	Indicate the “RF” and blink the “WARNING” On the LCD display.

< Menu to Use >

*** VTR SERVICE MENU ***

<VTR SERVICE 1/3>

⇒ RDS TYPE

<VTR D/A DATA>

⇒ ADJUST ADDRESS (01) to (08)

⇒ ADJUST DATA

< Detection Confirmation at REC Mode >

1. Open the SERVICE MENU and set the RDS TYPE to “REC".
2. Take a note of each ADDRESS DATA according to ADJUST ADDRESS value (01) to (08).
3. Insert the blank tape and record the internal color bar signal.
4. Select the item ADJUST ADDRESS (01) and set the ADJUST DATA value to “00".
5. After change the ADJUST DATA value, Confirm that the “RF” is displayed and “WARNING LED” blinks on LCD display.
6. Set the ADJUST DATA value of the ADJUST ADDRESS (01) back to original value.
7. Place the unit to REC-PAUSE.
8. Perform the same confirmation for ADJUST ADDRESS (02), (03), (04), (05), (06), (07) and (08) following above step 3 to 6.

< Detection Confirmation at SHORT PLAY Mode >

1. Open the SERVICE MENU and set the RDS TYPE to “S PLAY".
2. Perform confirmation by steps 1 to 8 of the "Detection Confirmation at REC Mode".

< Detection Confirmation at BOTH Mode >

1. Open the SERVICE MENU and set the RDS TYPE to “BOTH".
2. Perform confirmation by following steps 1 to 8 of the "Detection Confirmation at REC Mode".

ADJUST ADDRESS	ADJUST DATA		
	REC	S PLAY	BOTH
(01)			
(02)			
(03)			
(04)			
(05)			
(06)			
(07)			
(08)			

Table RDS-1. Setting Value Memo

<NOTE>

RDS : Low RF Detection System

Detect function to notice user Head Clogging (Level Down of RF Signal) as a WARNING.

< AUDIO >

8. AUDIO LCD

8-1. Initial Setting

< Side Switch Setting >

MONITOR SELECT	: 1/2, ST
AUDIO SELECT (CH1/2)	: MAN
AUDIO IN (CH1/2)	: REAR
CUE	: CH1
HD SDI	: EE/PB

< REAR JACK Switch Setting >

REAR JACK (CH1/2)	: LINE

< Menu Setting >

*** VTR MAIN MENU *** (ENG level)

<MIC/AUDIO>

FRONT MIC POWER	: OFF
MIC LOWCUT CH1	: OFF
MIC LOWCUT CH2	: OFF
LIMITER	: OFF
TEST TONE	: ALWAYS
REC CH3/CH4	: CH1/2
CUE SELECT	: SIDE SW
CUE REC	: ON

*** VTR SERVICE MENU *** (SERVICE level)

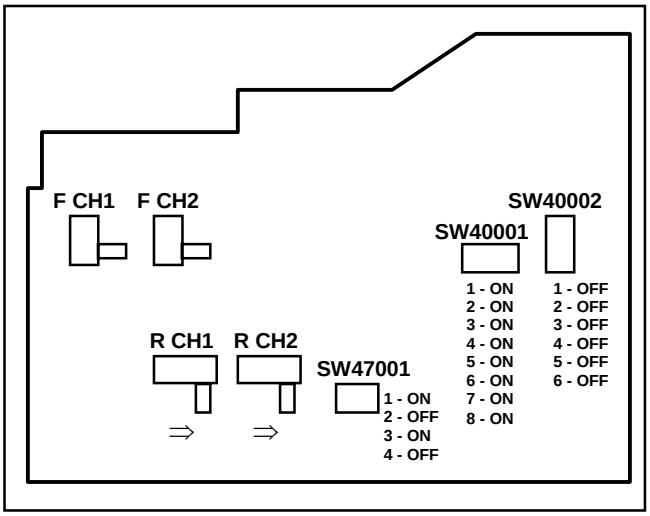
<VTR SERVICE 3/3>

AUDIO PB SEL	: CH1/2
AUDIO SAVE	: OFF
AUDIO CH7/8	: EE/PB

<Note>

Above AUDIO SAVE items are reset to "ACTIVE" when the power of the main unit is turned OFF.

< SW Setting of AUDIO LCD P.C.Board >



8-2. Real Time Clock Adjustment

BOARD	AUDIO LCD
TP	TP62007 (RTC TP)
ADJUST	VC62001
MODE	STOP
M. EQ	Frequency Counter
SPEC.	2.048000 kHz +/- 0.000005 kHz

1. While pressing the “HOLD" and “RESET" buttons simultaneously, set the AUDIO IN CH1 SW to “FRONT”. (Confirm that "RF”, “SERVO", "HUMID" and "SLACK" in the LCD display blink at the same time.)
2. Set the LIGHT SW to “ON" while pressing the "HOLD" button.
3. Adjust VC62001 so that the frequency is within the specification at the TP62007.
4. Set the LIGHT SW to “OFF" while pressing the “HOLD" button.
5. While pressing the “HOLD" and "RESET" buttons simutaneously, set the AUDIO IN CH2 SW to “FRONT”. (Confirm that “RF", "SERVO", "HUMID" and "SLACK" in the LCD display light out.)

<Note>

Perform the adjustment only when the AUDIO LCD board is cooled down.

8-3. REC Level Adjustment

BOARD	AUDIO LCD
TP	AUDIO OUT (CH1, CH2)
ADJUST	VR43002 : CH1, VR43004 : CH2
INPUT	+4dBu, 1kHz (REAR CH1/2)
MODE	STOP
TAPE	-----
M. EQ	Audio Analyzer
SPEC.	+4.0dBu +/- 0.2 dB

1. Input the audio signal of + 4dBu/1kHz to the REAR AUDIO IN terminal.
2. Adjust VR43002 and VR43004 so that the output level is within the specification.

8-4. Audio Level Meter Adjustment

BOARD	AUDIO LCD
TP	TP46001 : CH1, TP46002 : CH2
ADJUST	VR46001 : CH1, VR46002 : CH2
INPUT	+4dBu, 1kHz (REAR CH1/2)
MODE	STOP
TAPE	-----
M. EQ	Audio Analyzer
SPEC.	+0.690V +/- 0.005V

1. Input the audio signal of + 4dBu/1kHz to the REAR AUDIO IN terminal.
2. Adjust VR46001 and VR46002 so that the voltage of each test point are within the specification.

<Note>
At this time, confirm that the LCD Level Meter displayed “-20dB”.

8-5. Test Tone Adjustment

BOARD	AUDIO LCD
TP	AUDIO OUT (CH1)
ADJUST	VR43005, VR43006
INPUT	Internal Color Bar
MODE	STOP
TAPE	-----
M. EQ	Audio Analyzer (22Hz-22kHz Filter)
SPEC.	Distortion : 1.0% +/- 0.1% Output : +4.0dBu +/- 0.2dB

1. Select the internel color bar to output the TEST TONE.
2. Adjust VR43005 so that the distortion is within the specification.
3. Adjust VR43006 so that the output level is within the specification.
4. Set the internal color bar to OFF.

8-6. CUE REC level adjustment

BOARD	AUDIO LCD
TP	TP48001
ADJUST	VR48001
INPUT	+4dBu, 1kHz (REAR CH1/CH2)
MODE	STOP
TAPE	-----
M. EQ	Audio Analyzer
SPEC.	-30.0dBu +/- 0.2 Db

1. Input the audio signal of + 4dBu/1kHz to the REAR AUDIO IN terminal.
2. Adjust VR48001 so that the level of TP48001 is within the specification.

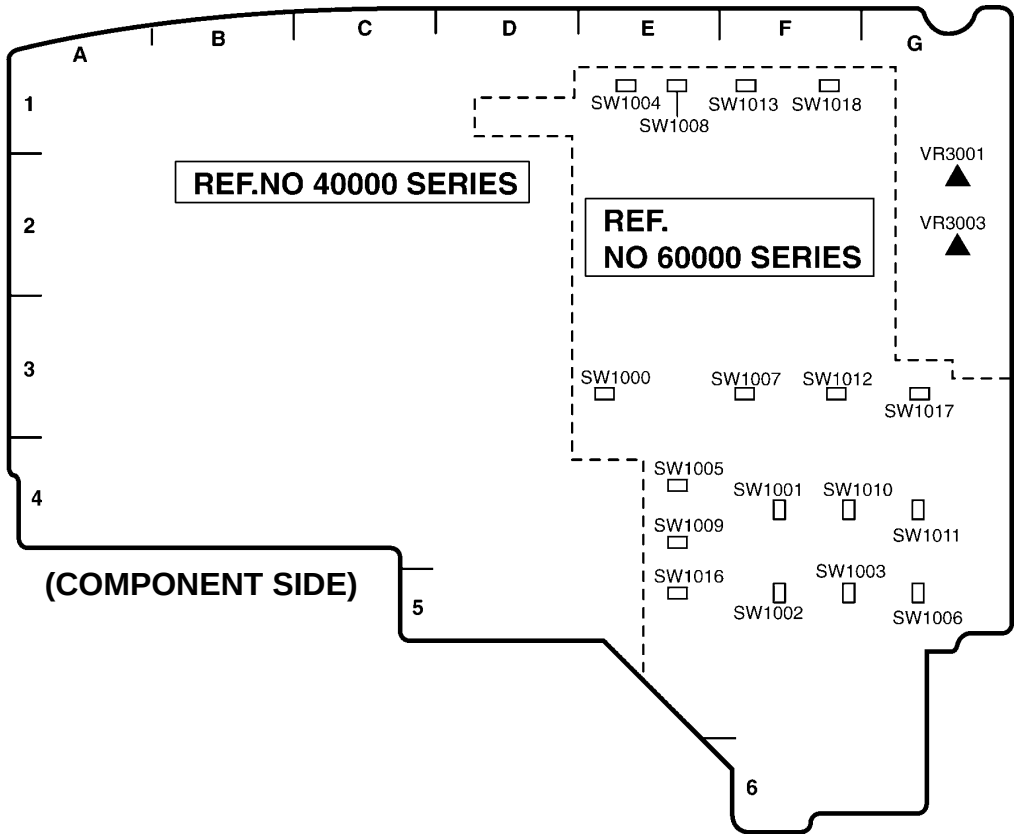
8-7. CUE REC Current Adjustment

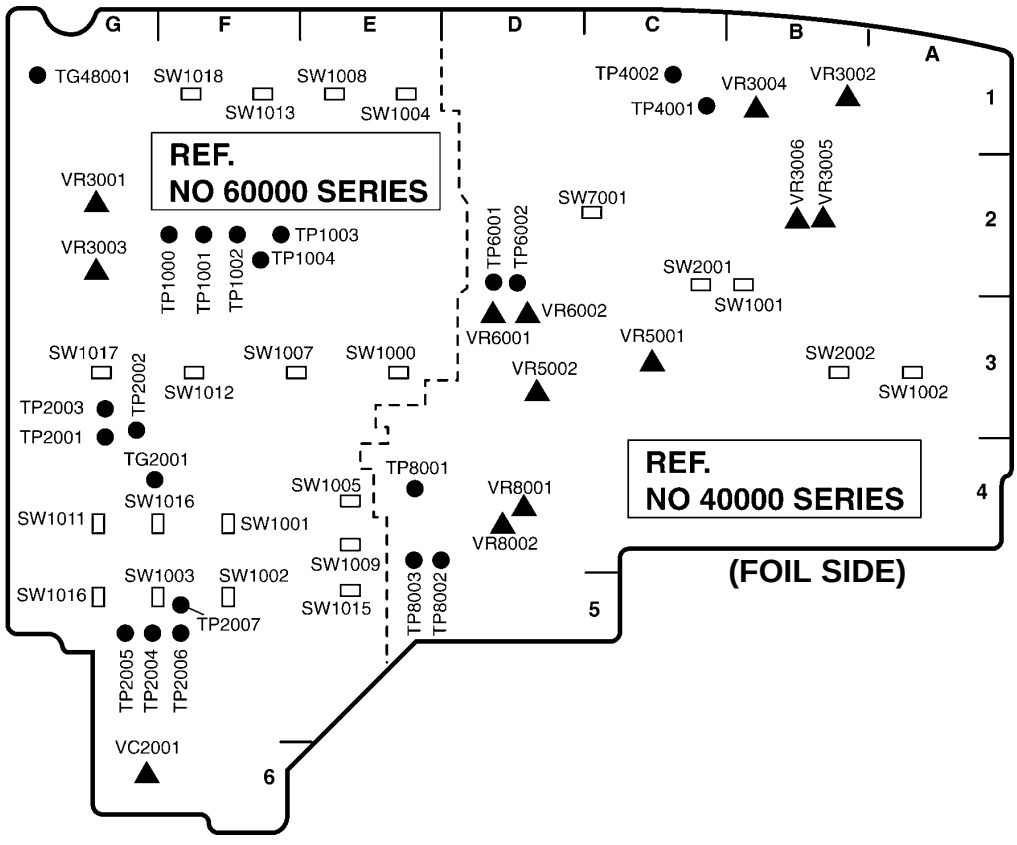
BOARD	AUDIO LCD, CUE
TP	TP48002 [AUDIO LCD]
ADJUST	VR1002 [CUE]
INPUT	+4dBu, 1kHz (REAR CH1/CH2)
MODE	REC, PLAY
TAPE	Blank Tape
M. EQ	Audio Analyzer (1LHz B.P.F)
SPEC.	-6.0dBu +/- 0.5 dB

1. Input the audio signal of + 4dBu/1kHz to the REAR AUDIO IN terminal and record it.
2. Play the recorded portion and adjust VR1002 so that the signal level of TP48002 is within the specification.

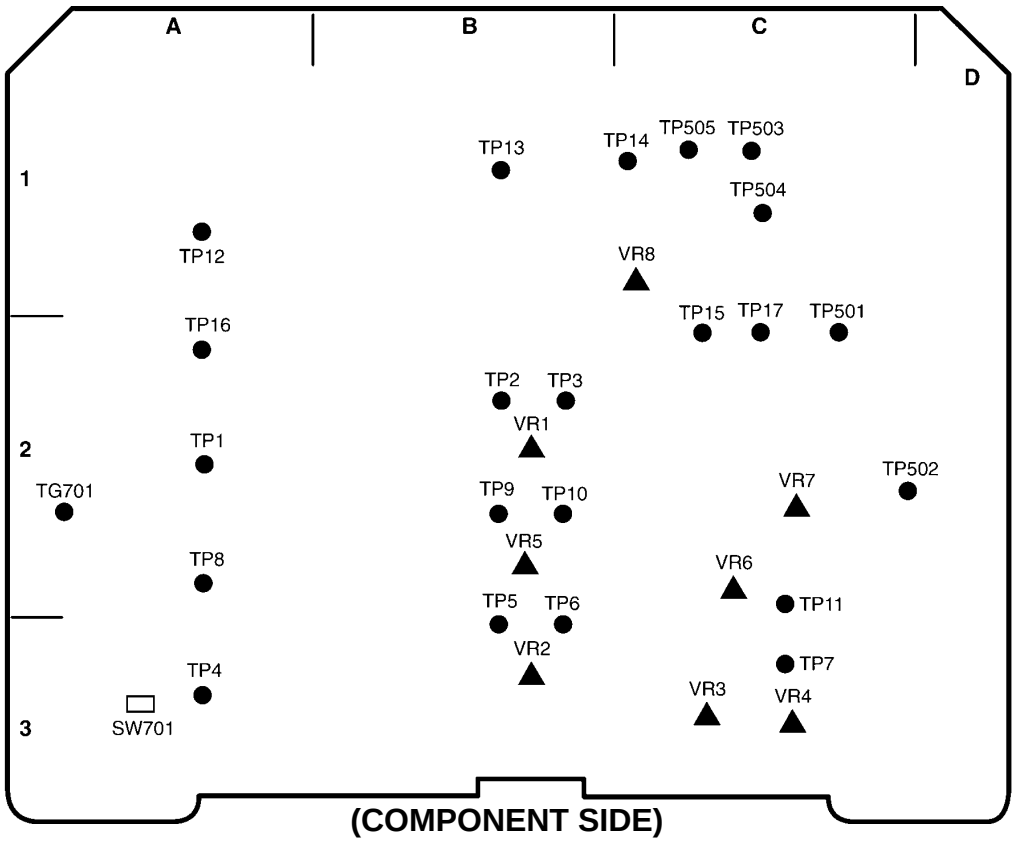
9. TP, VR and SW Location

AUDIO LCD P.C.BOARD (VEP84331A)



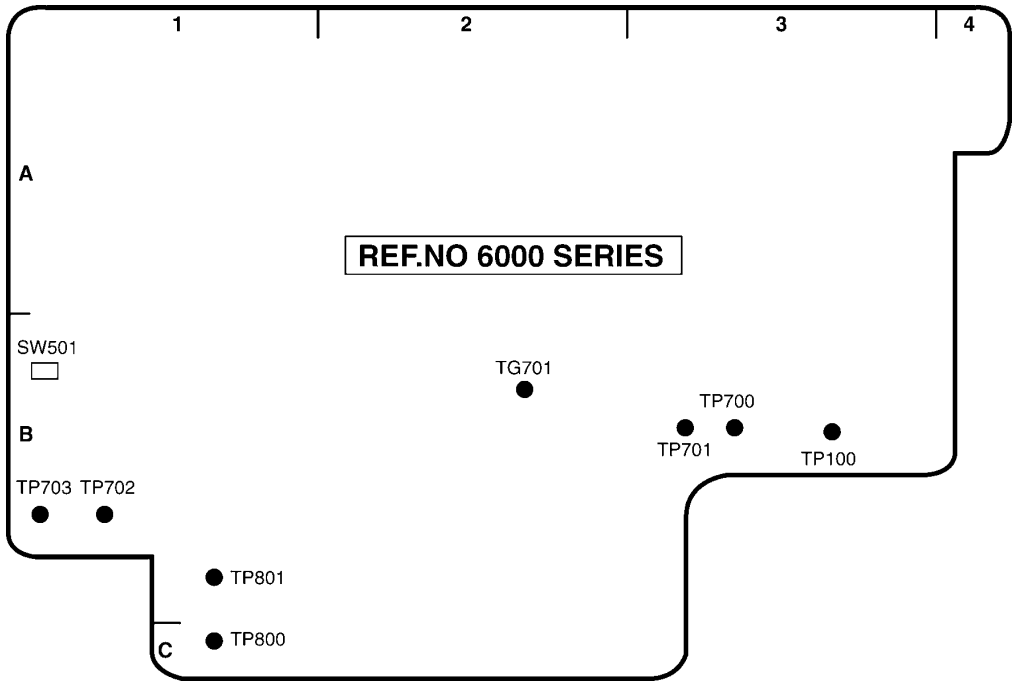


VIDEO OUT P.C.BOARD (VEP23500B)



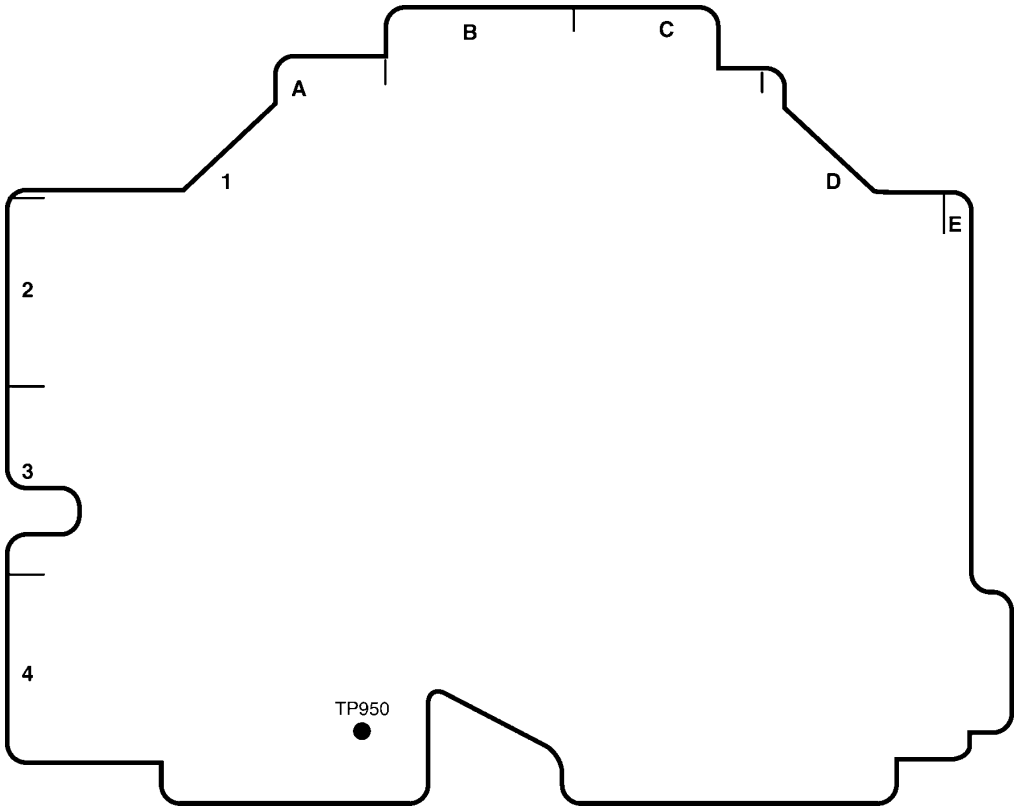
(COMPONENT SIDE)

VTR SYSCON P.C.BOARD (VEP86303B)

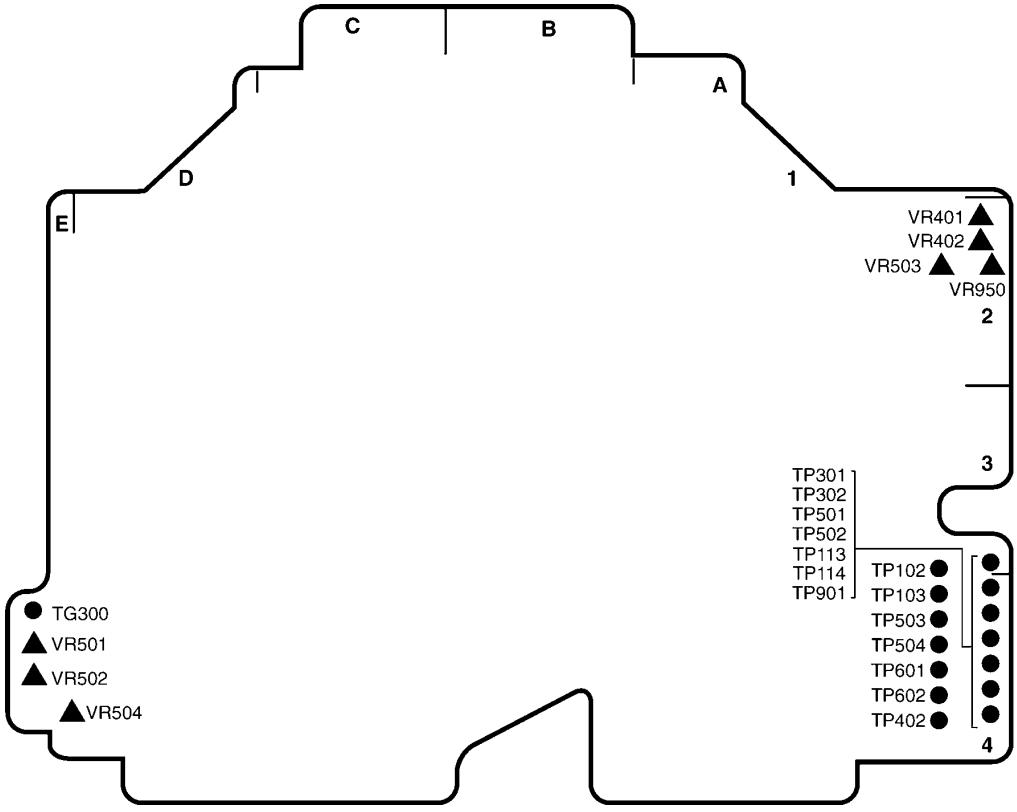


(FOIL SIDE)

SERVO P.C.BOARD (VEP82224A)

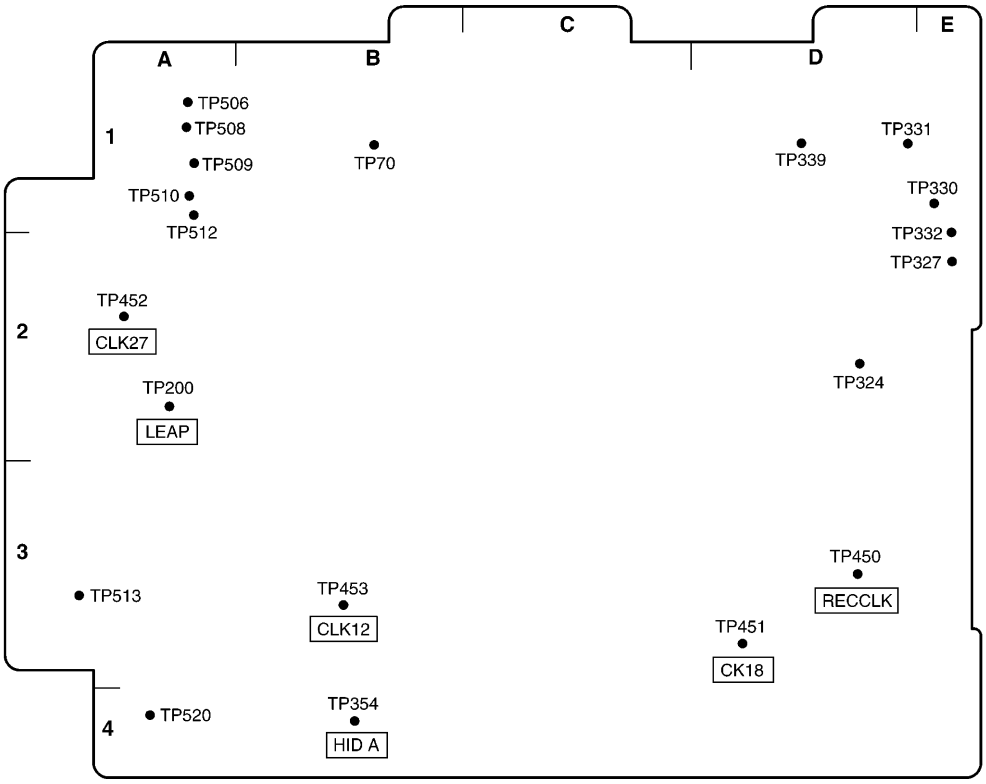


(COMPONENT SIDE)

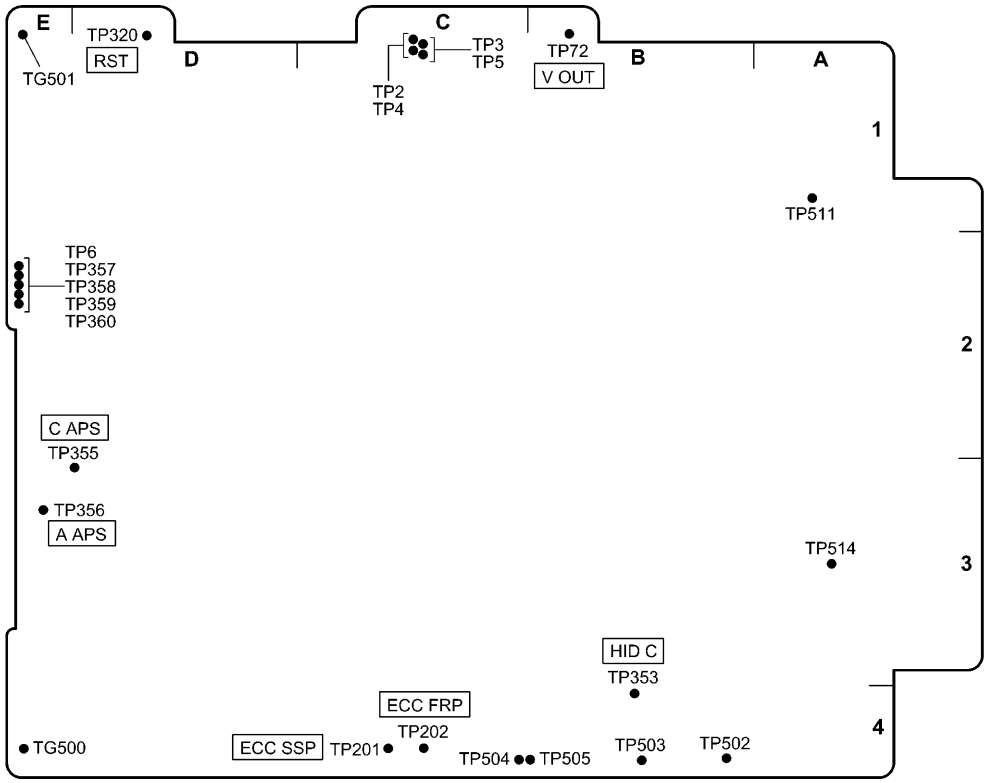


(FOIL SIDE)

VIDEO MAIN P.C.BOARD (VEP83462B)

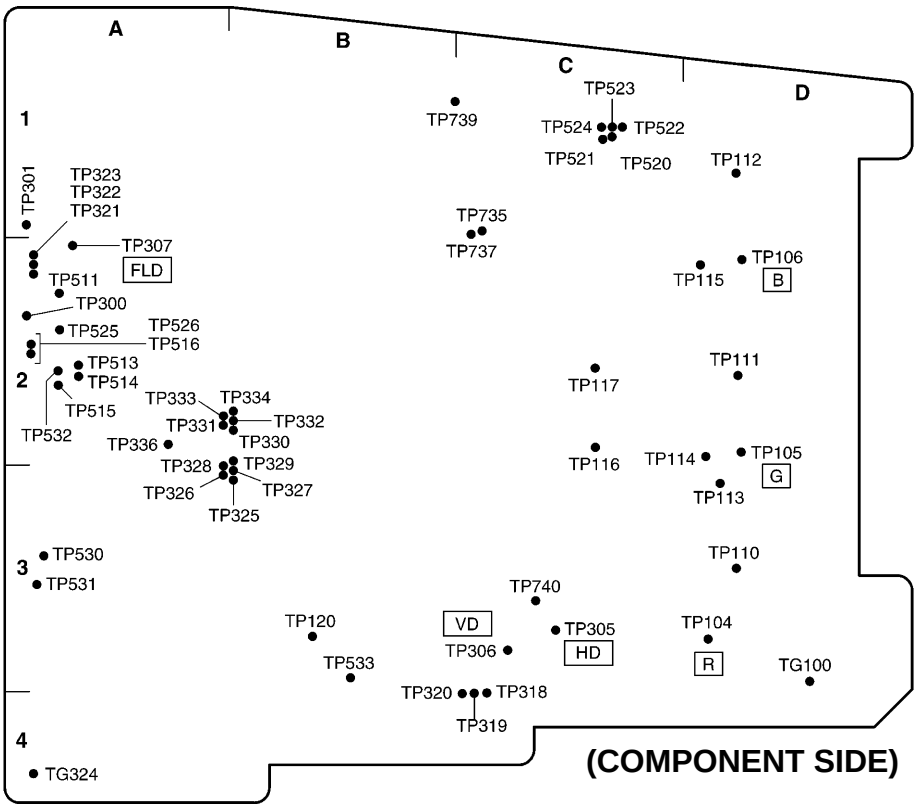


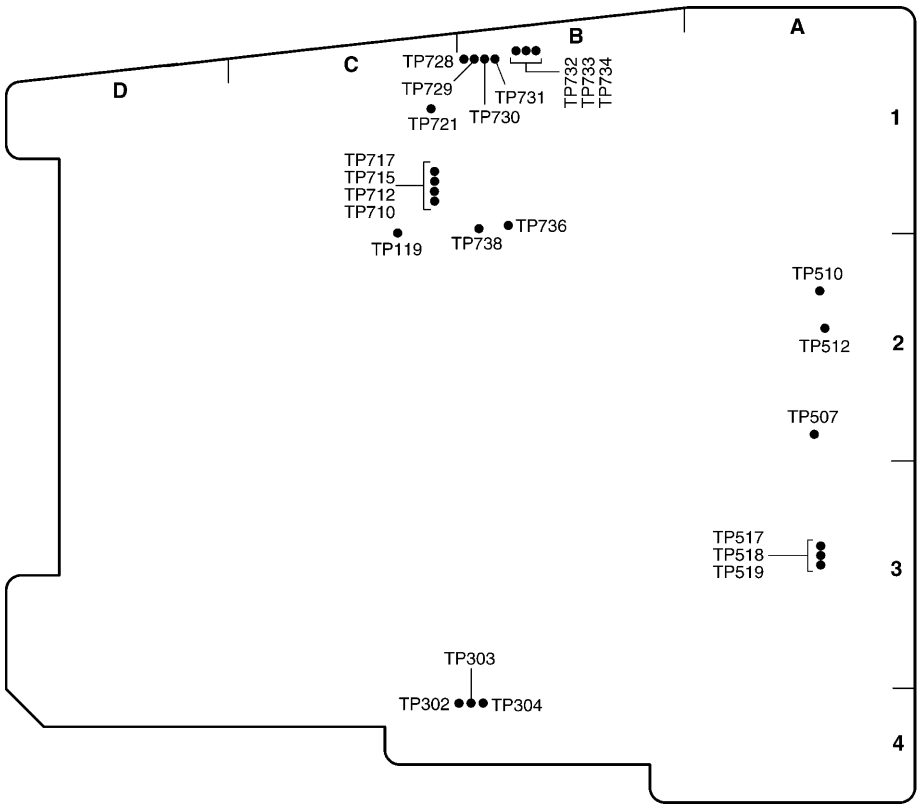
(COMPONENT SIDE)



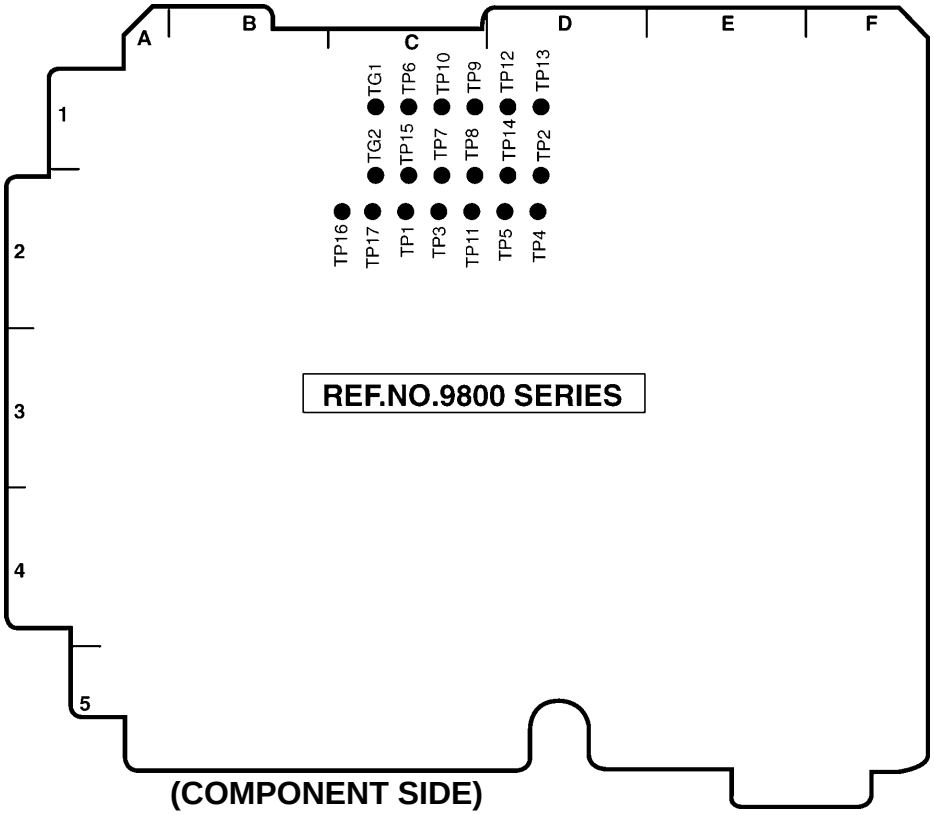
(FOIL SIDE)

DSP MAIN P.C.BOARD (VEP23530A)

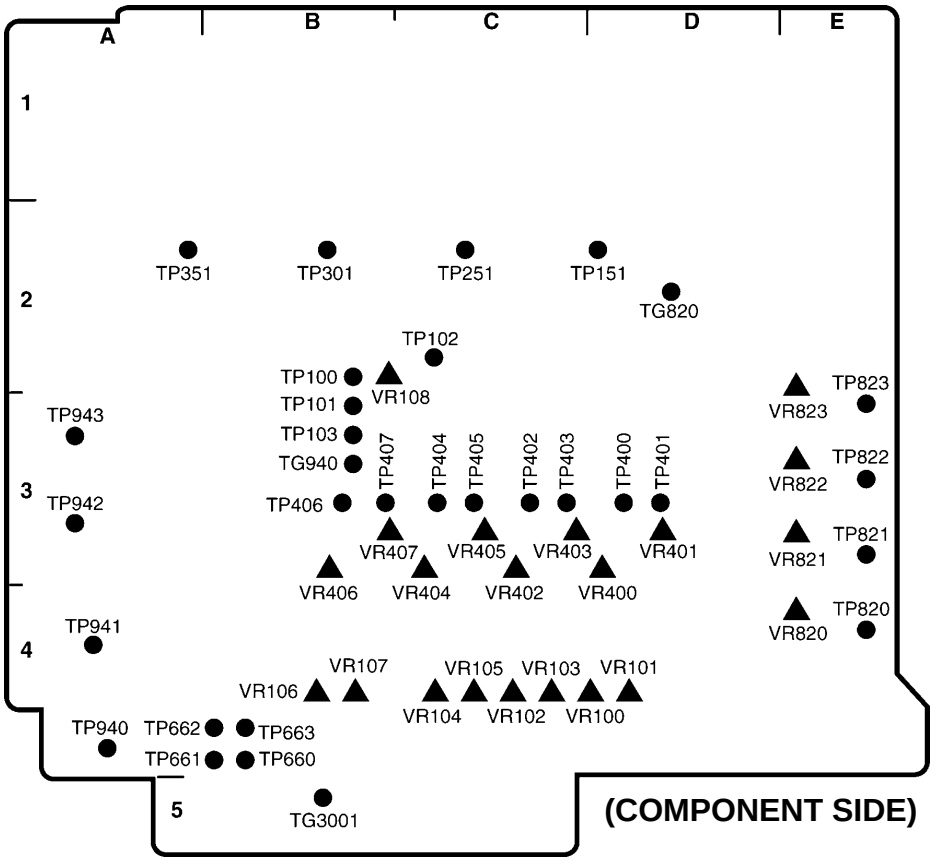




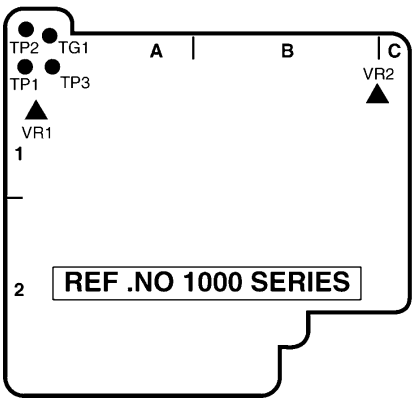
VTR MOTHER P.C.BOARD (VEP80B10A)



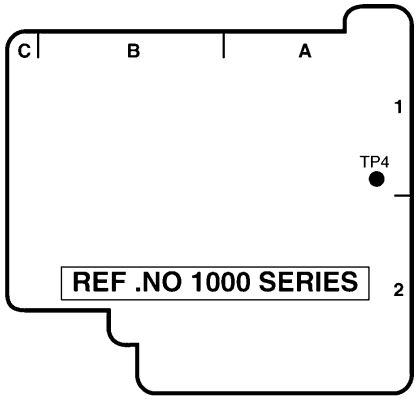
RF EQ P.C.BOARD (VEP87104B)



CUE P.C.BOARD (VEP84353A)

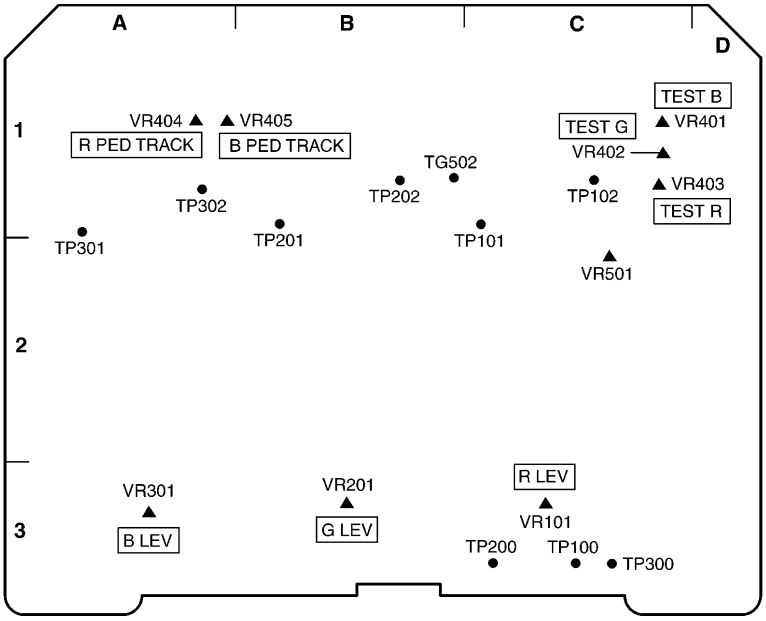


(COMPONENT SIDE)

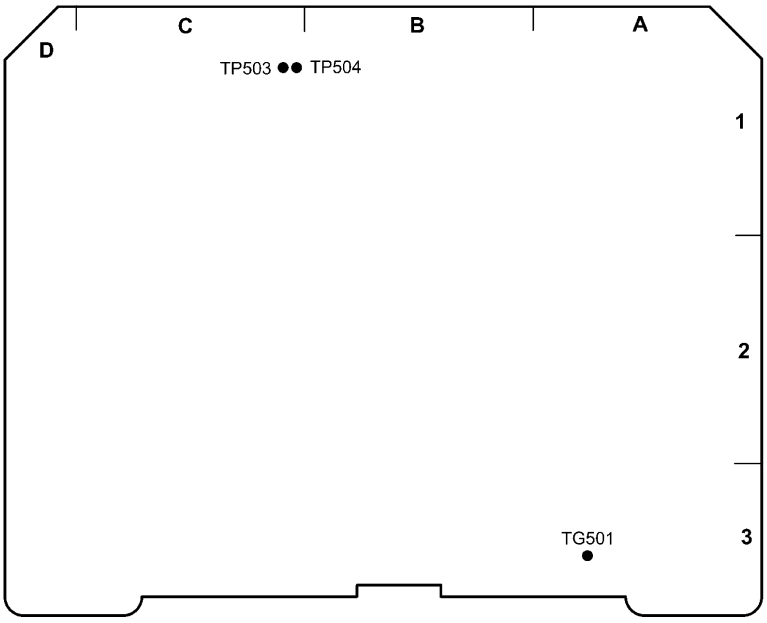


(FOIL SIDE)

PRE PROCESS P.C.BOARD (VEP23534A)

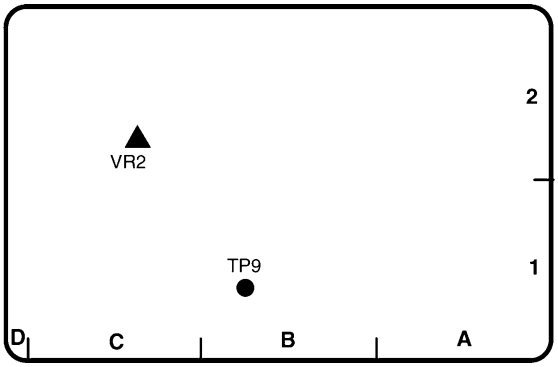


(COMPONENT SIDE)



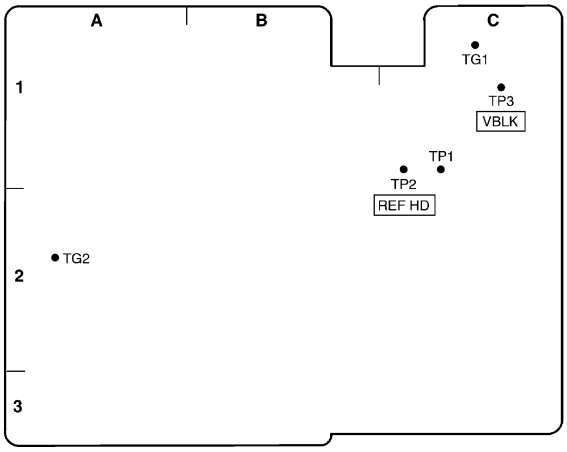
(FOIL SIDE)

HD SDI TX P.C.BOARD (VEP83460B)



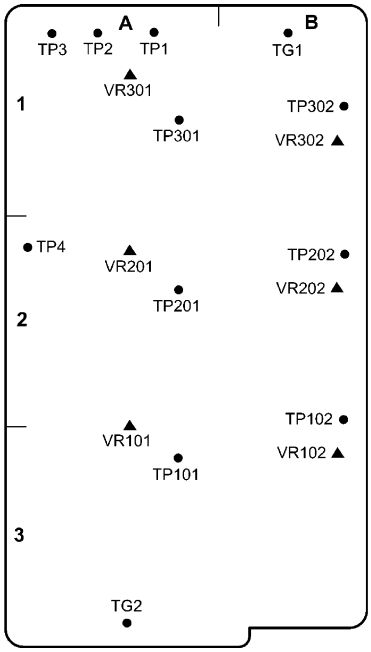
(COMPONENT SIDE)

CCD PULSE P.C.BOARD (VEP20800A)



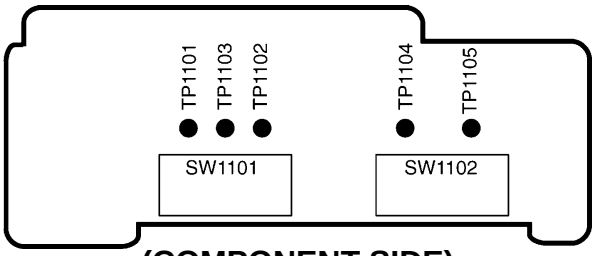
(COMPONENT SIDE)

PRE AMP P.C.BOARD (VEP20857A)



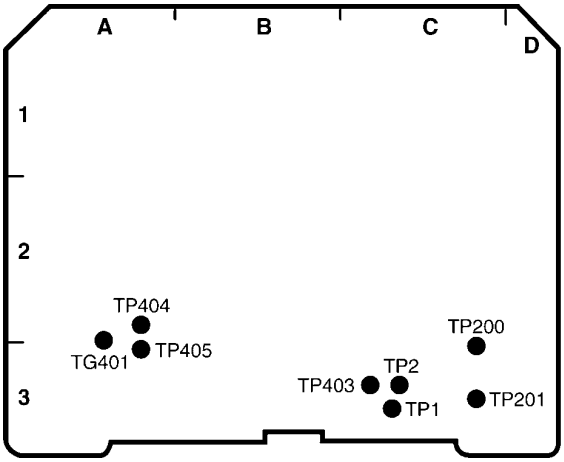
(COMPONENT SIDE)

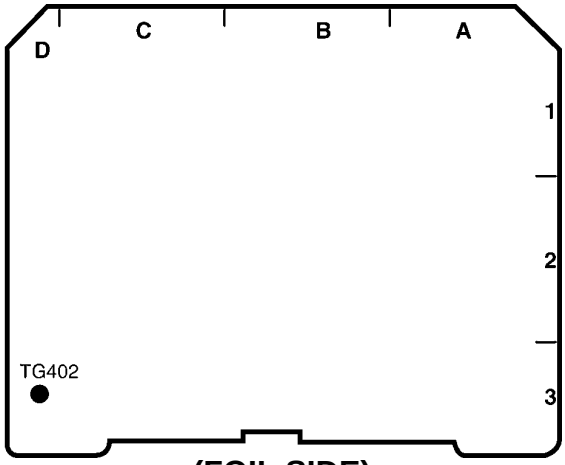
REAR SW P.C.BOARD (VEP80B45A)



(COMPONENT SIDE)

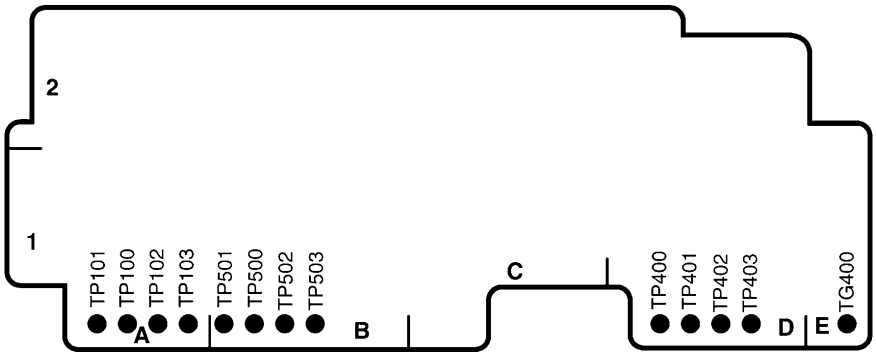
CAMERA SYSCON P.C.BOARD (VEP26234B)



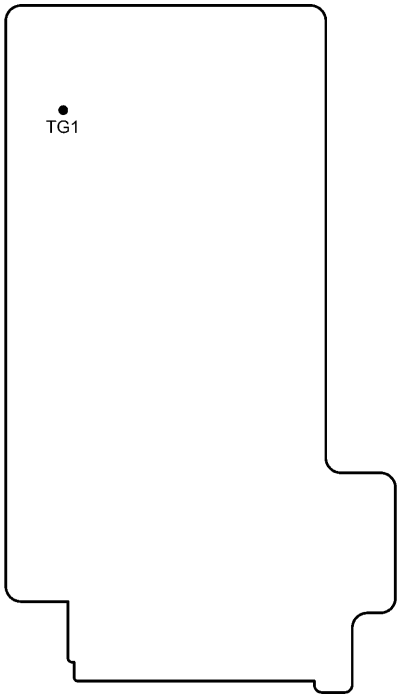


(FOIL SIDE)

HEAD BUFF P.C.BOARD (VEP85179B)

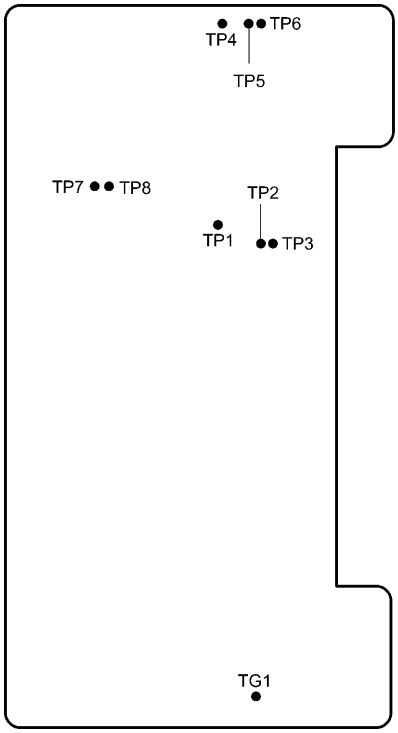


SD CARD P.C.BOARD (VEP23532A)



(COMPONENT SIDE)

MEMORY P.C.BOARD (VEP23531A)



(COMPONENT SIDE)

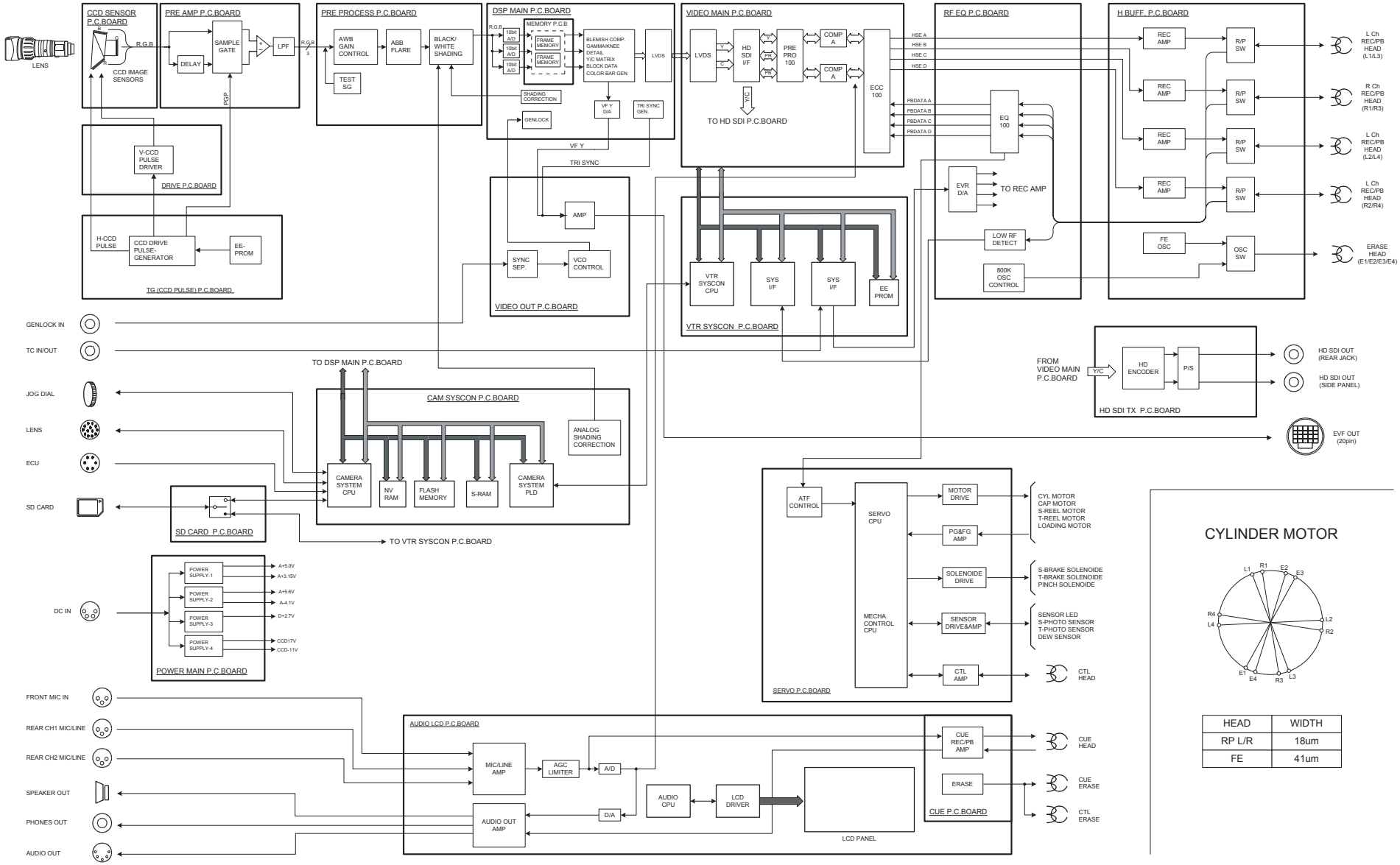
SECTION 6

BLOCK DIAGRAMS

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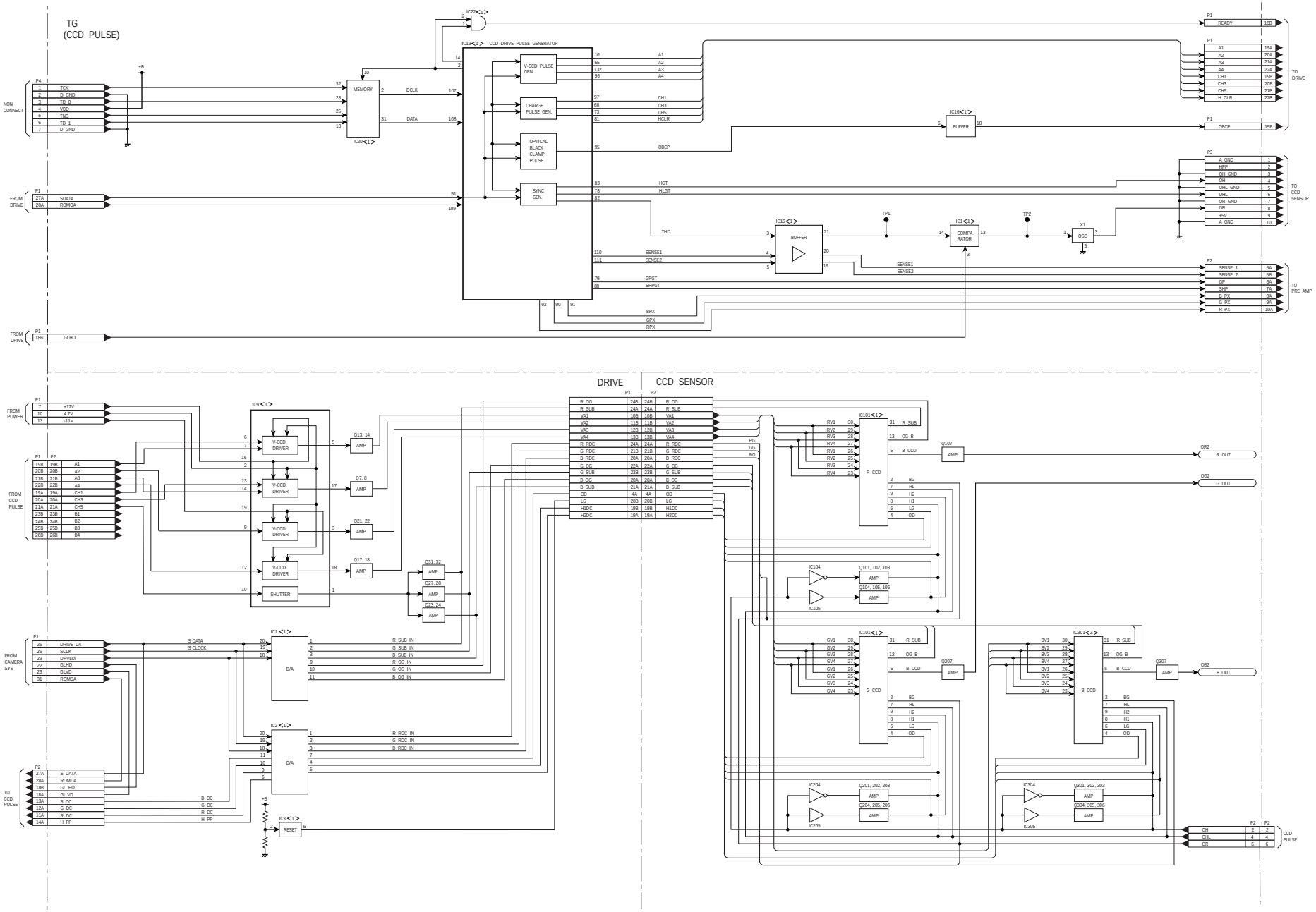
OVERALL BLOCK DIAGRAM BLK-1
CCD SENSOR/TG (CCD PULSE)/DRIVE BLOCK DIAGRAM BLK-2
PRE PROCESS/PRE AMP BLOCK DIAGRAM BLK-3
DSP MAIN/MEMORY BLOCK DIAGRAM BLK-4
VIDEO OUT BLOCK DIAGRAM BLK-5
HD BUFFER BLOCK DIAGRAM BLK-6
RF EQ BLOCK DIAGRAM BLK-7
HD SDI TX/VIDEO MAIN BLOCK DIAGRAM BLK-8
AUDIO LCD/CUE BLOCK DIAGRAM BLK-9
SERVO BLOCK DIAGRAM BLK-10
CAMERA SYSCON BLOCK DIAGRAM BLK-11
VTR SYSCON/SD CARD BLOCK DIAGRAM BLK-12
POWER MAIN/SUB BLOCK DIAGRAM BLK-13

OVERALL BLOCK DIAGRAM



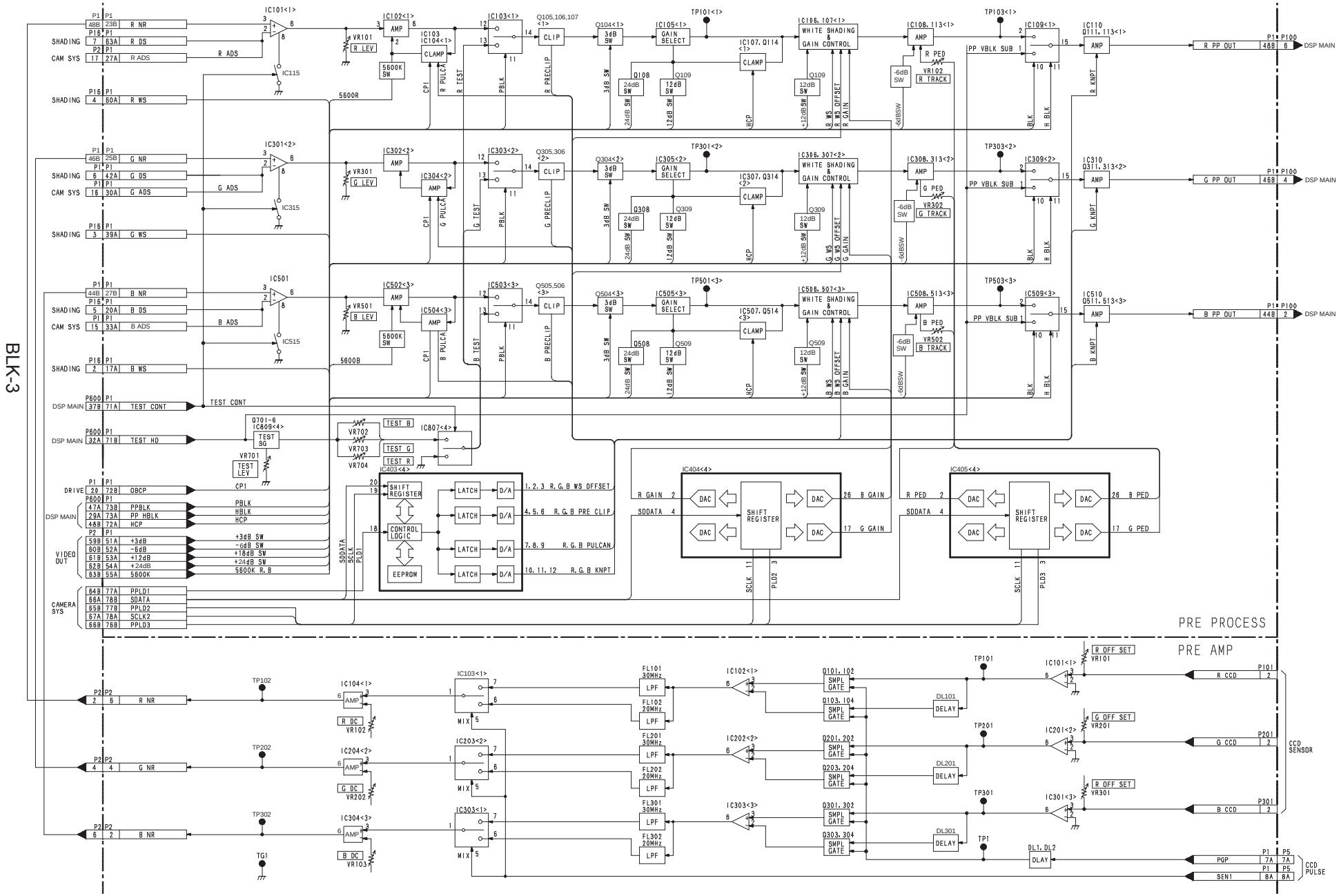
BLK-1

CCD SENSOR/TG (CCD PULSE)/DRIVE BLOCK DAIGRAM

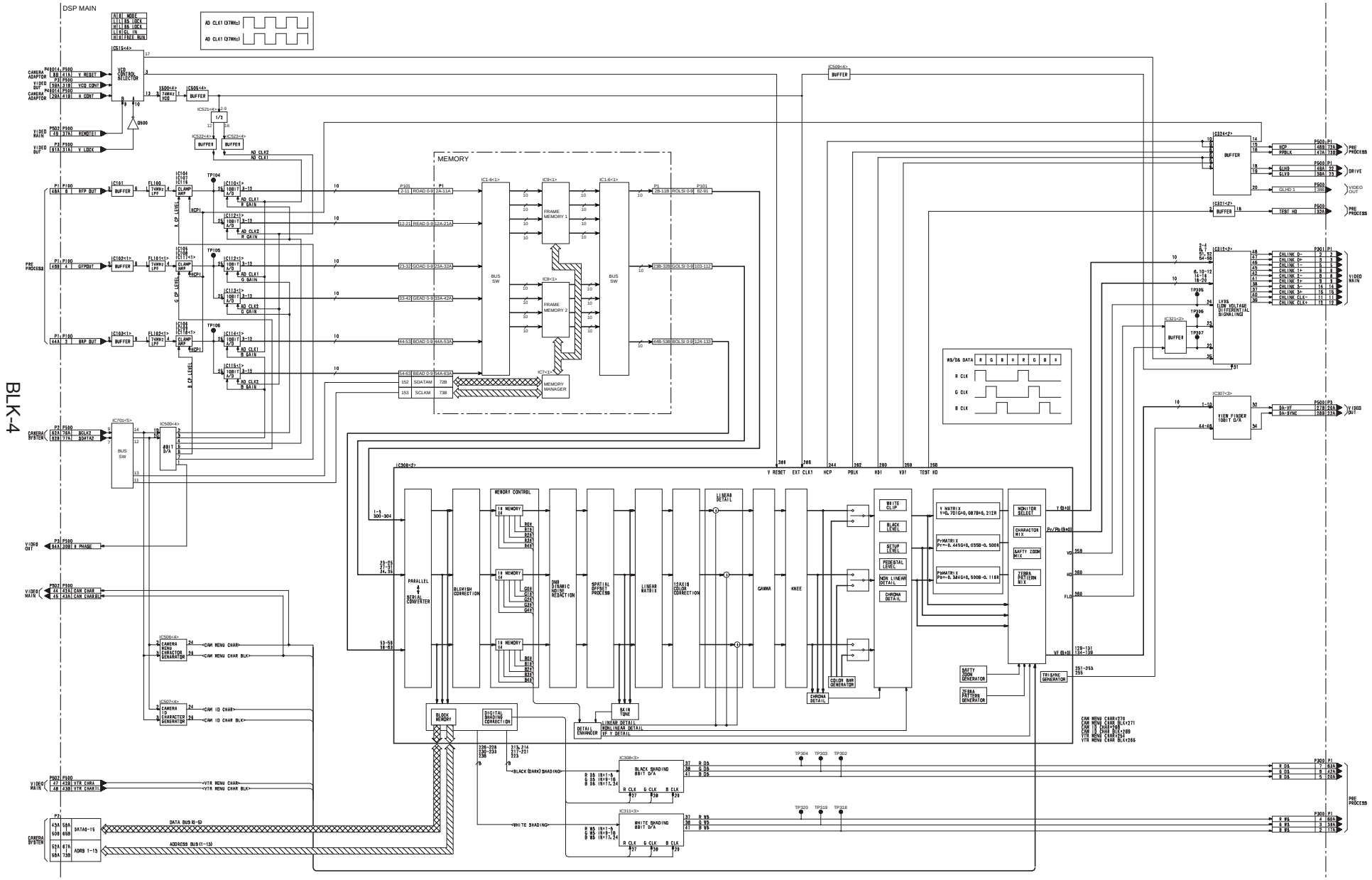


BLK-2

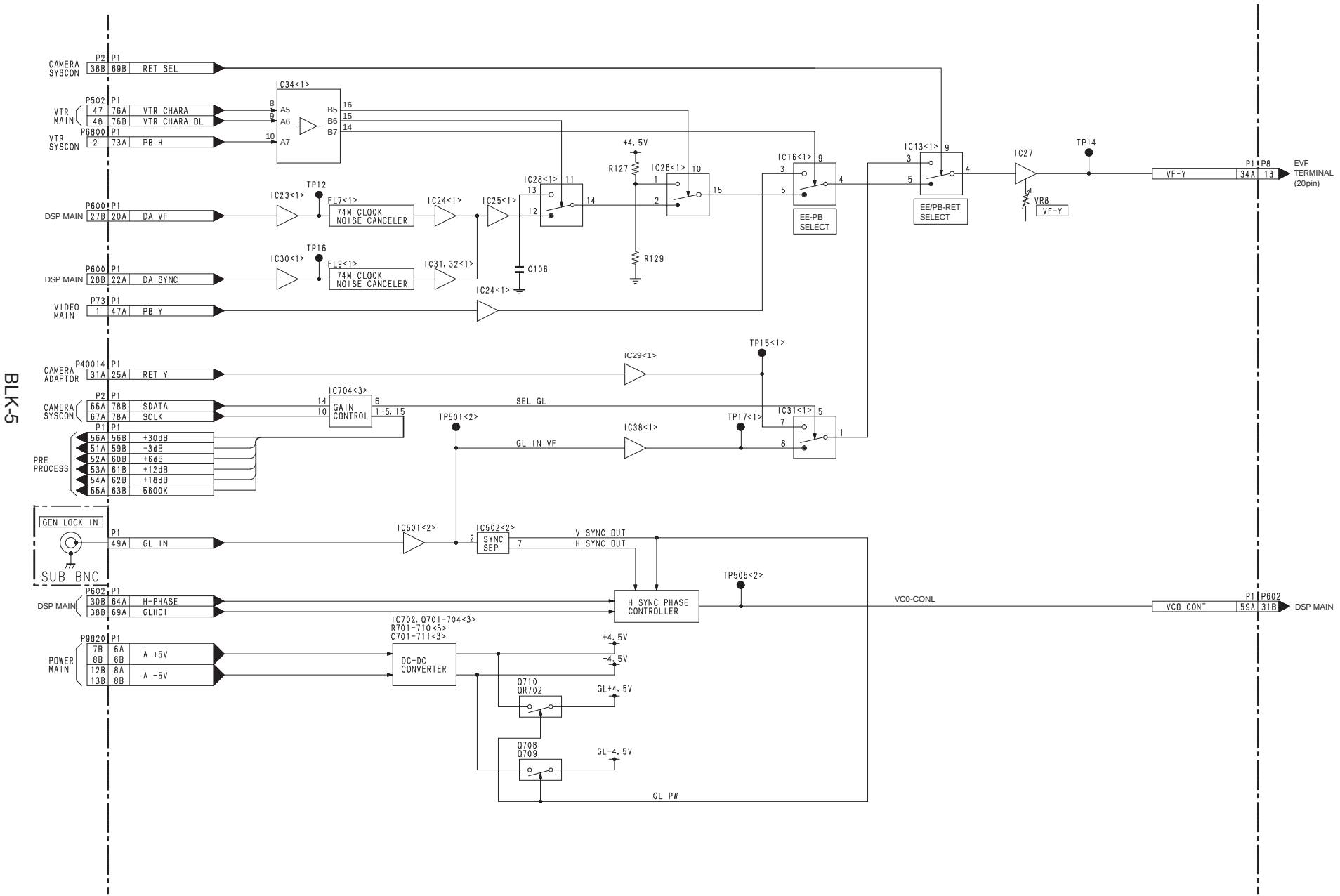
PRE PROCESS/PRE AMP BLOCK DIAGRAM



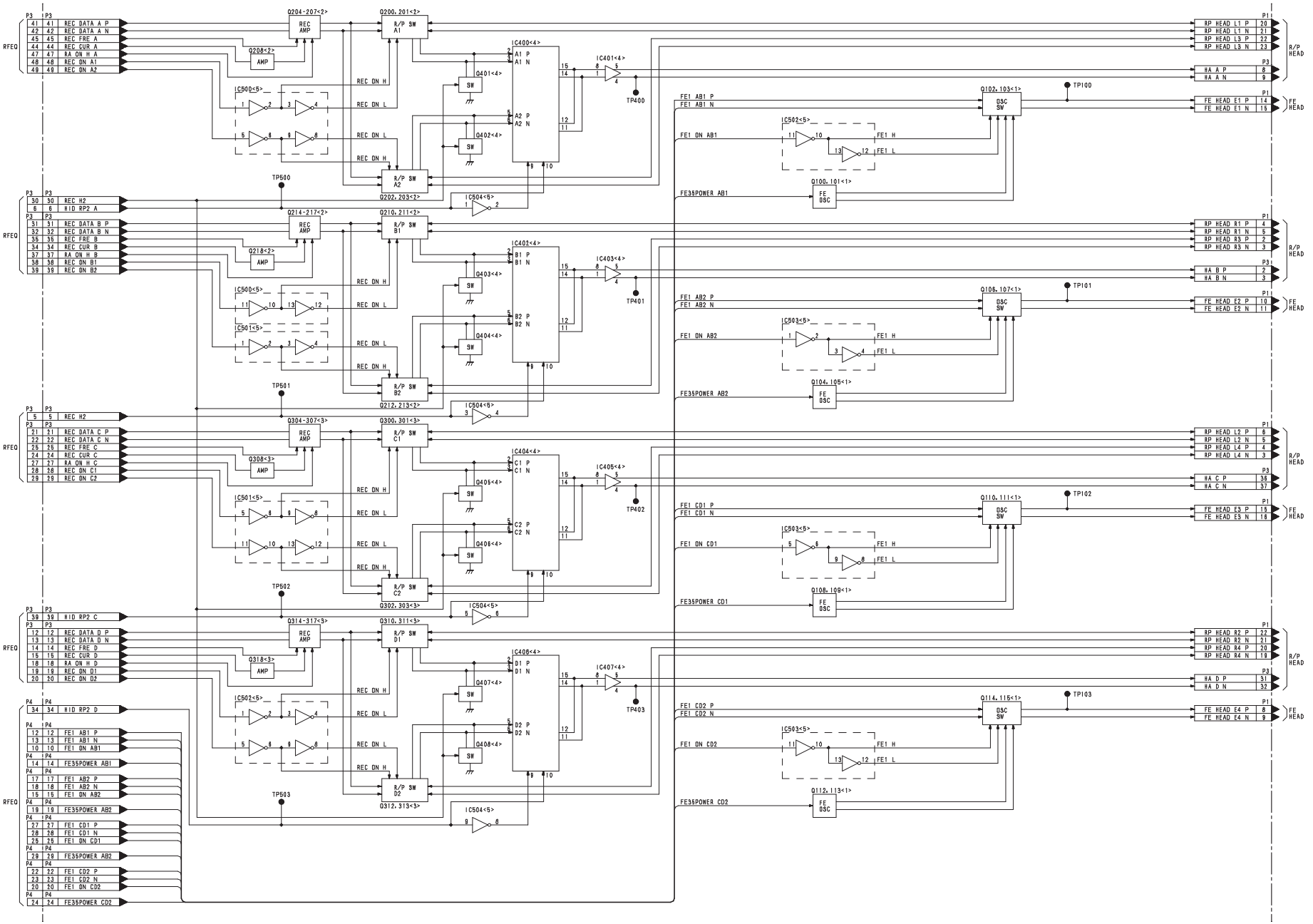
DSP MAIN/MEMORY BLOCK DIAGRAM



VIDEO OUT BLOCK DIAGRAM

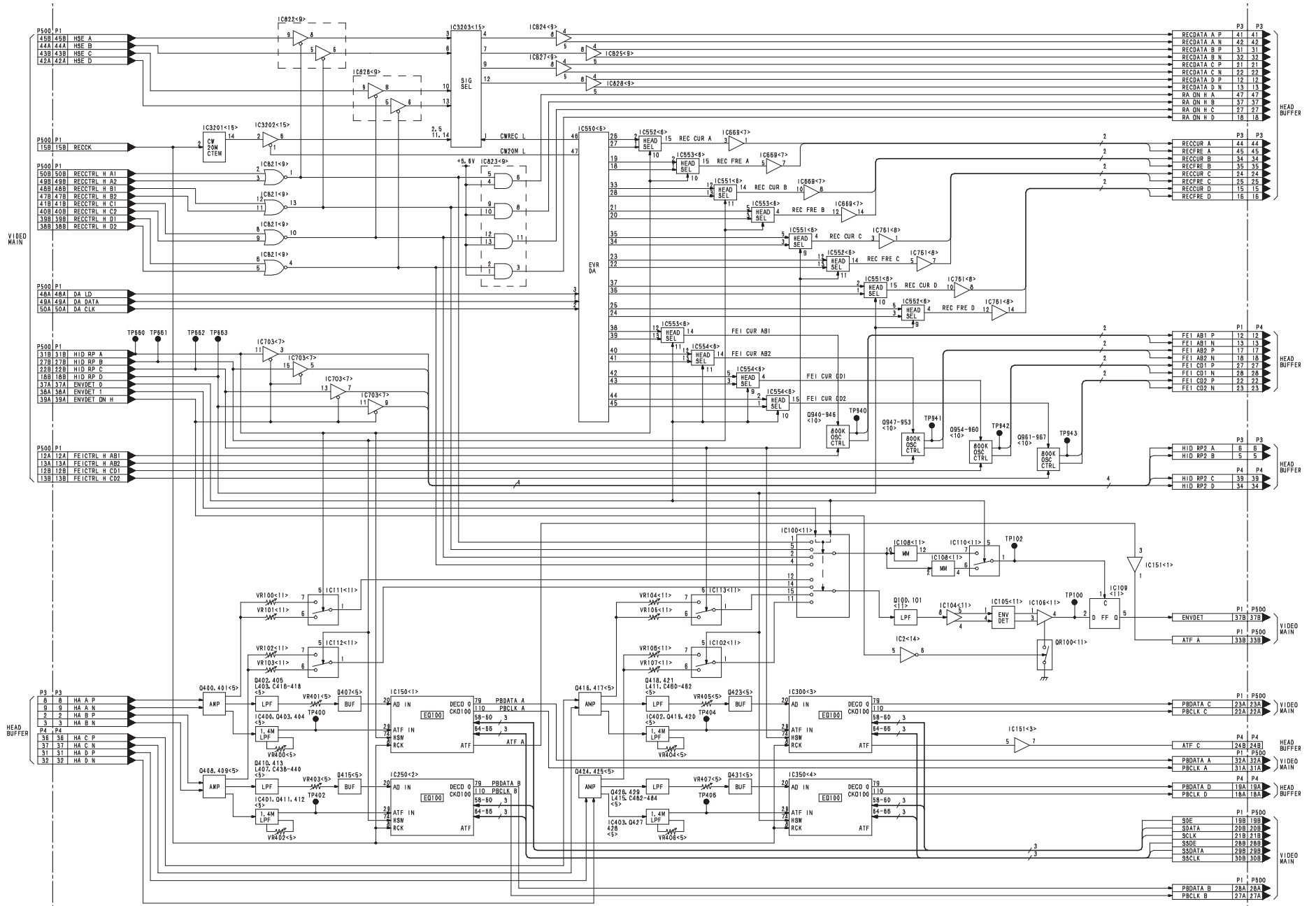


HEAD BUFFER BLOCK DIAGRAM

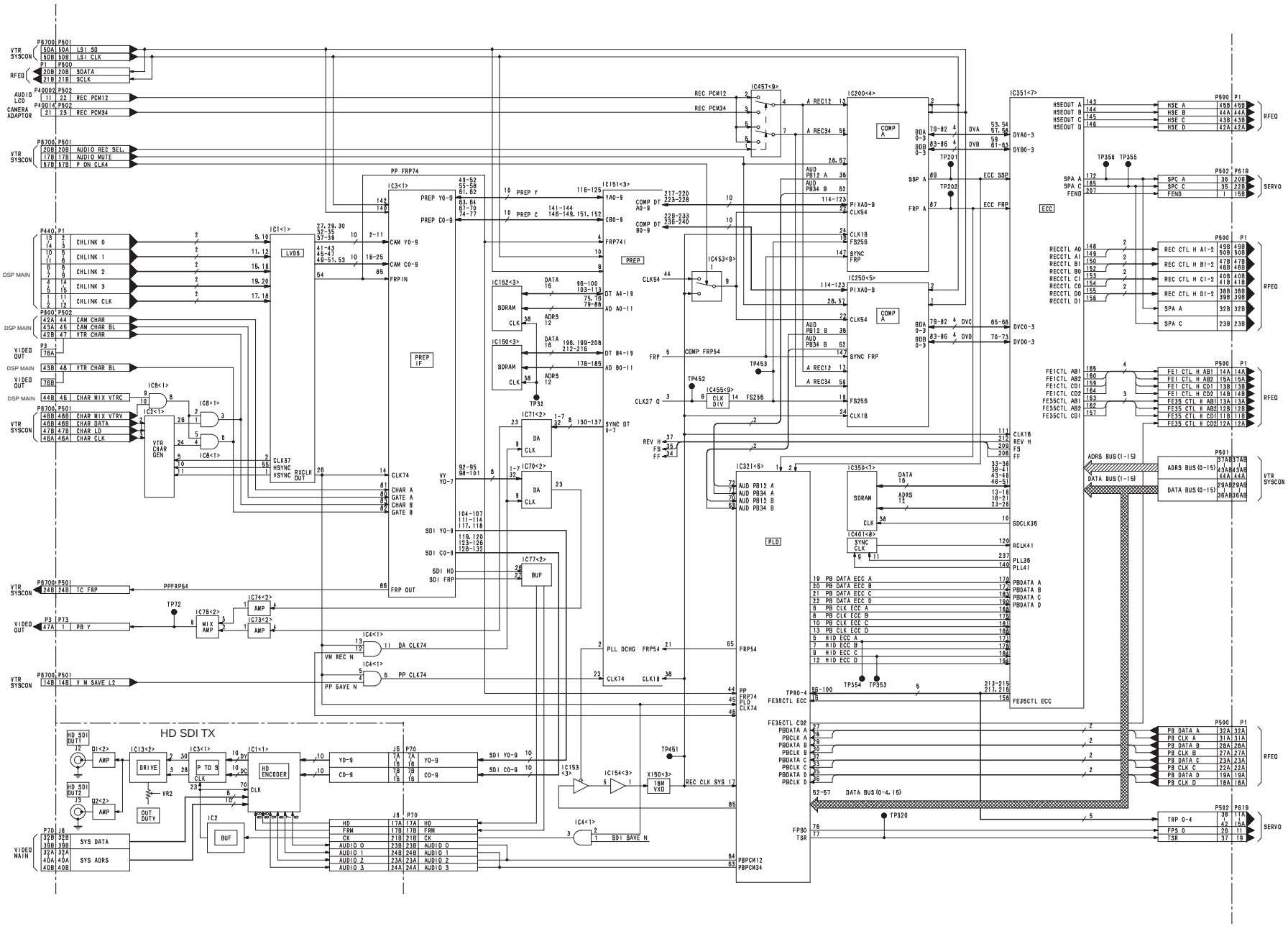


BLK-6

RF EQ BLOCK DIAGRAM

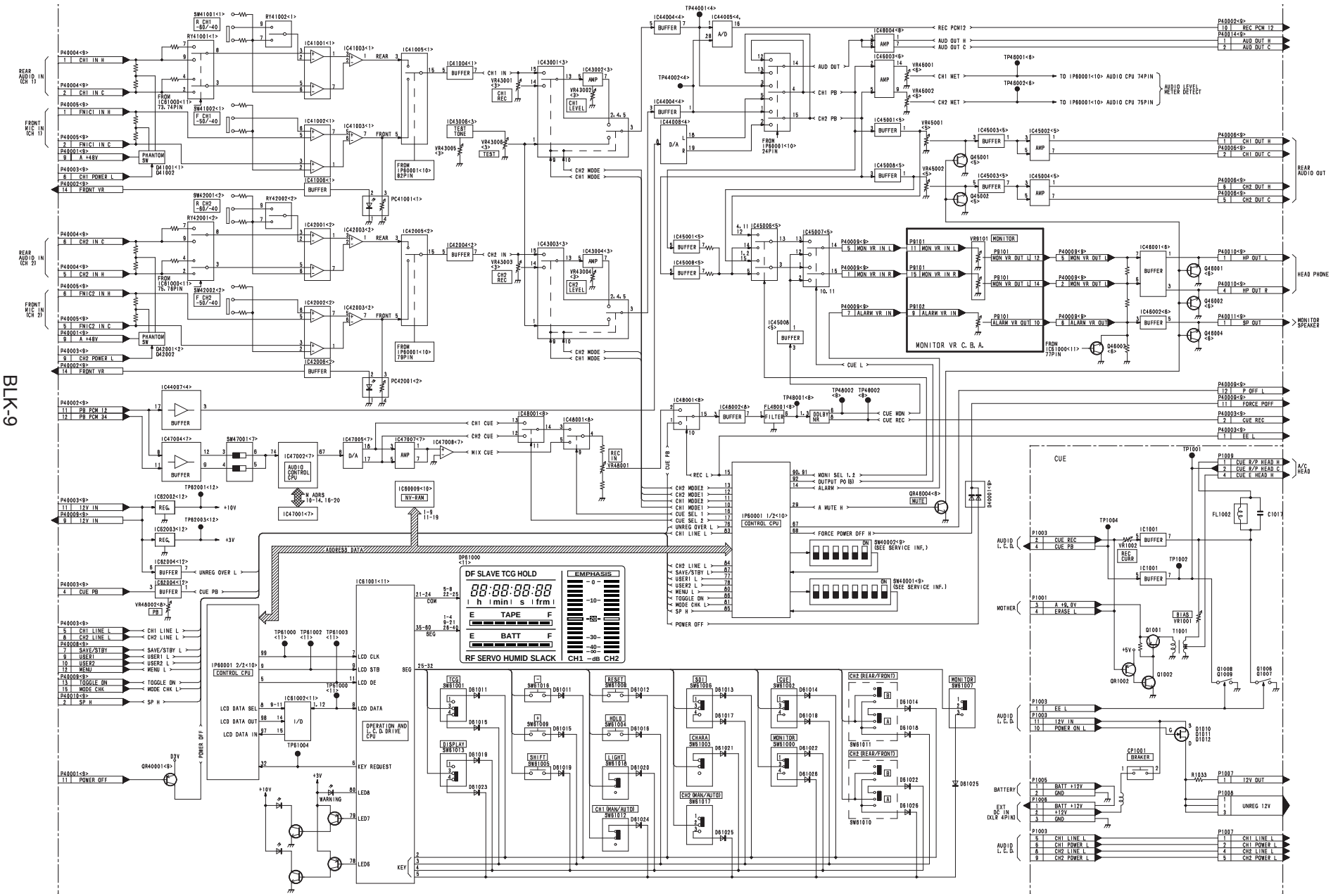


HD SDI TX/VIDEO MAIN BLOCK DIAGRAM



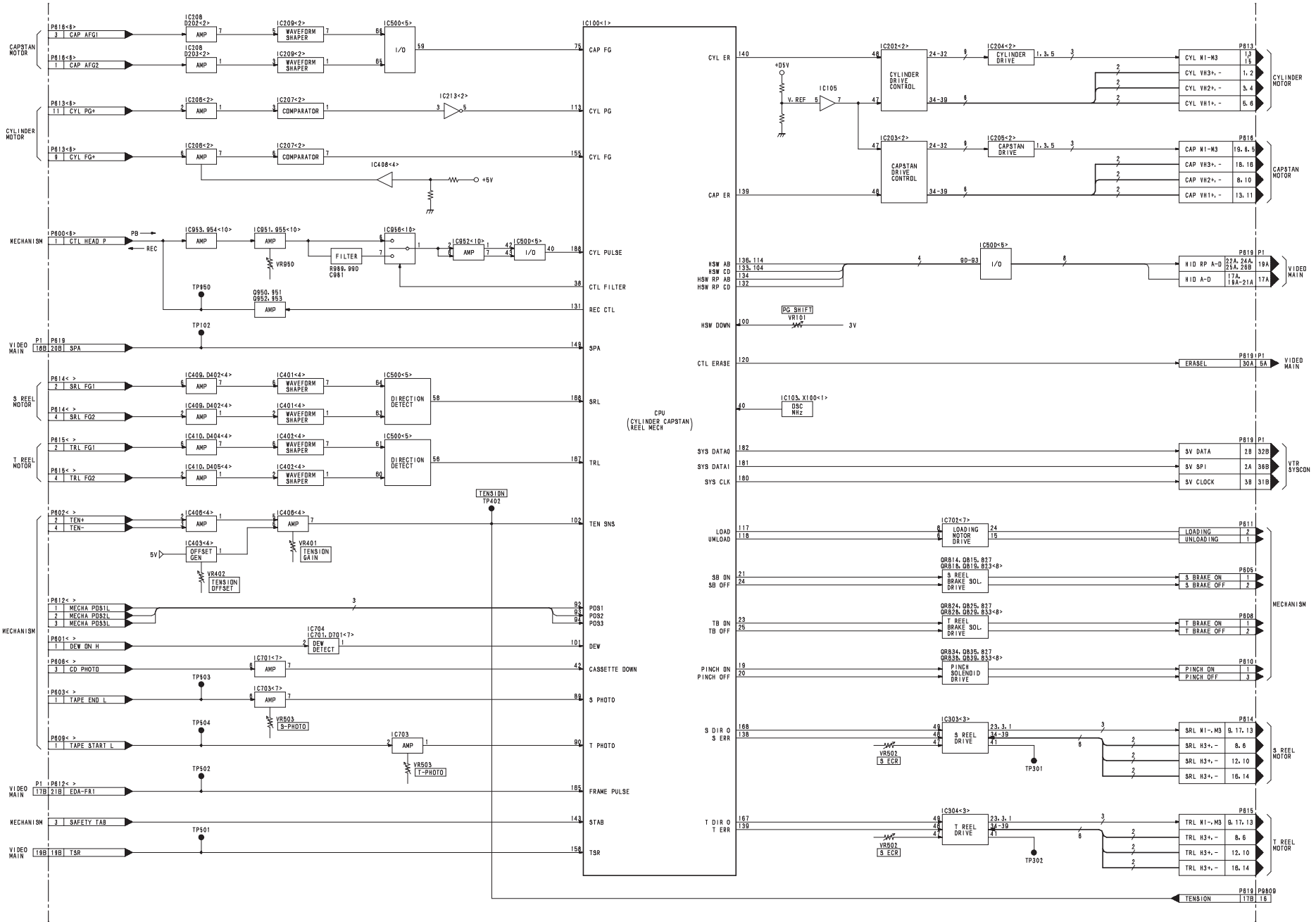
BLK-8

AUDIO LCD/CUE BLOCK DIAGRAM

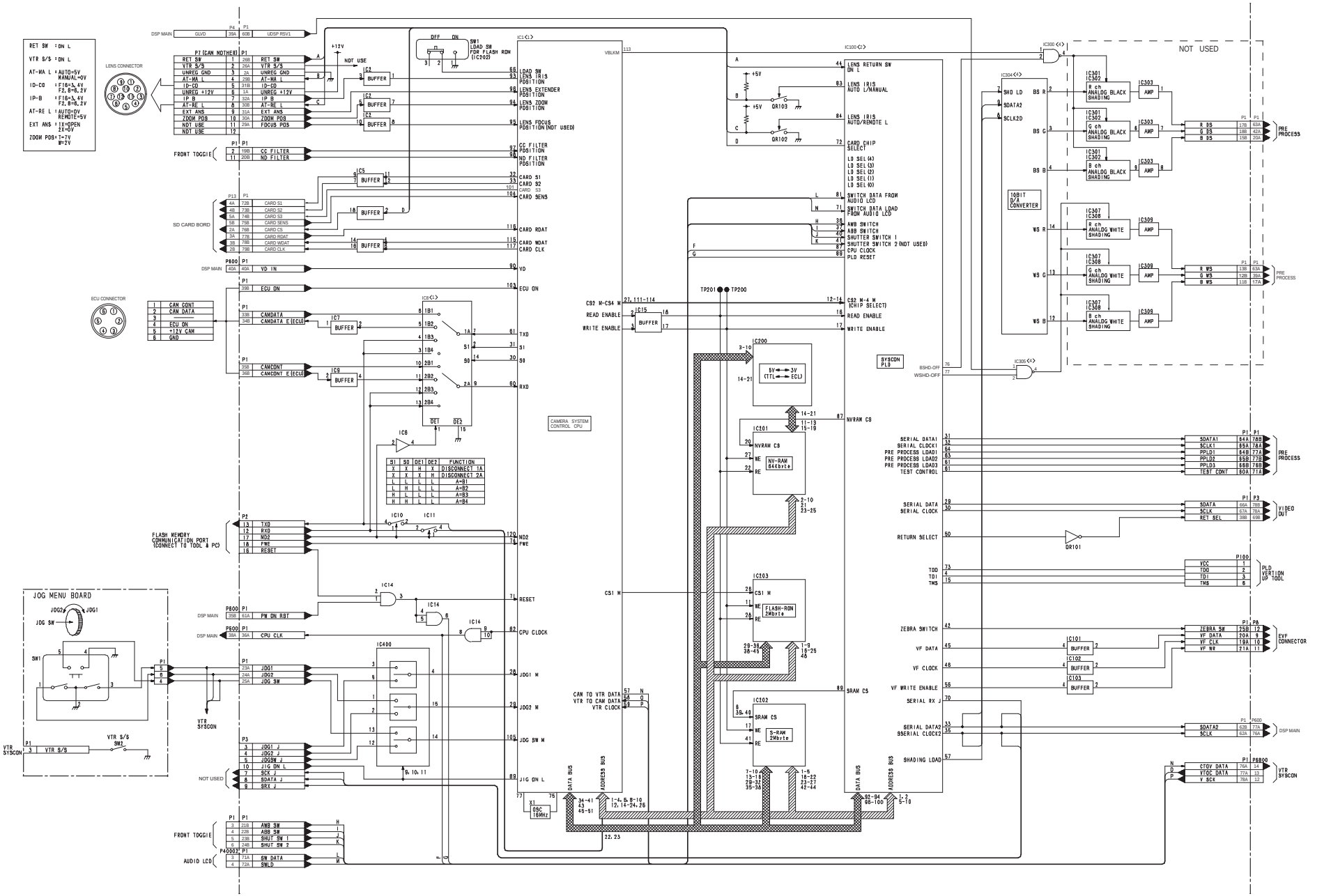


BLK-9

SERVO BLOCK DIAGRAM

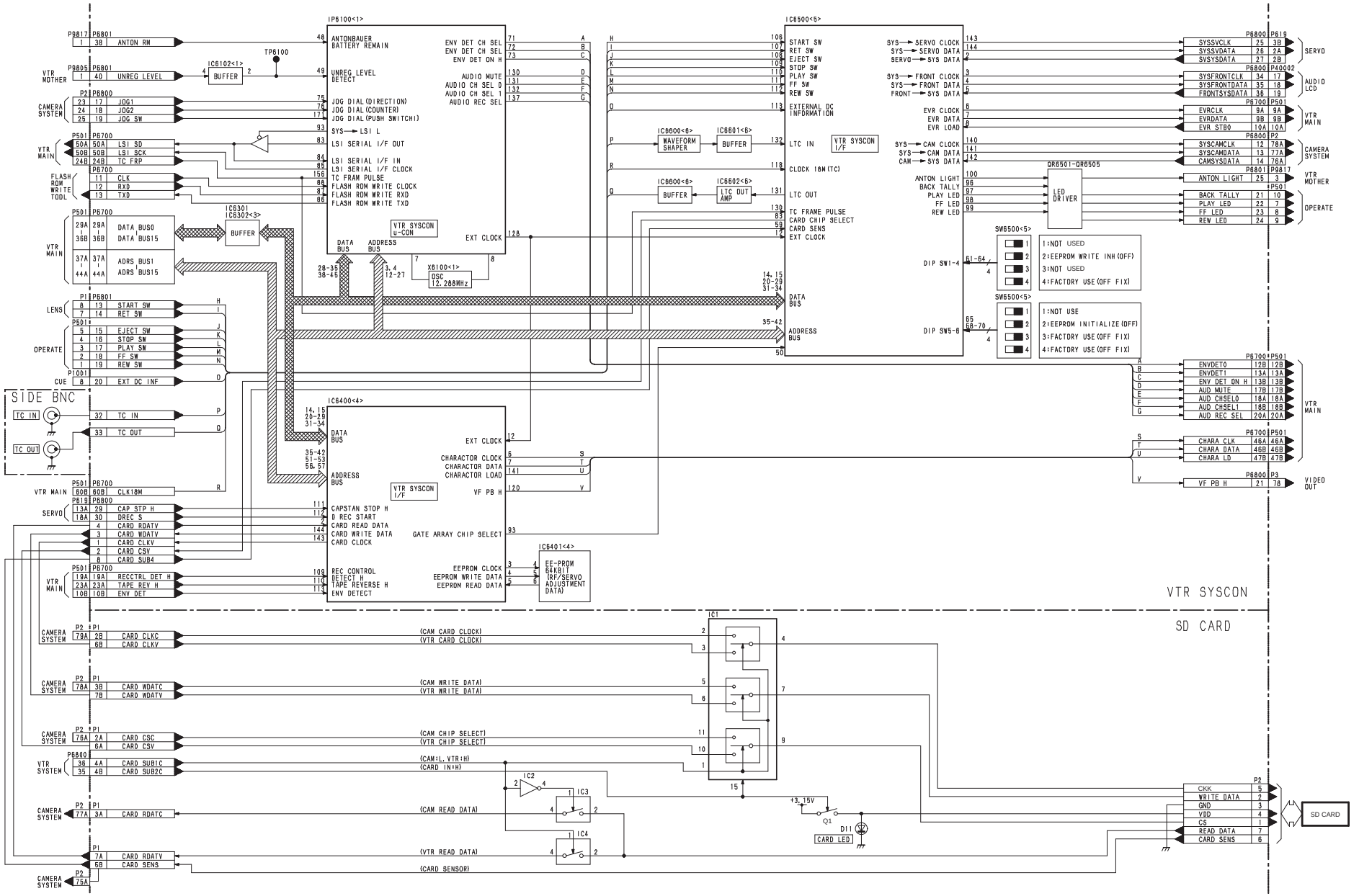


CAMERA SYSCON BLOCK DIAGRAM

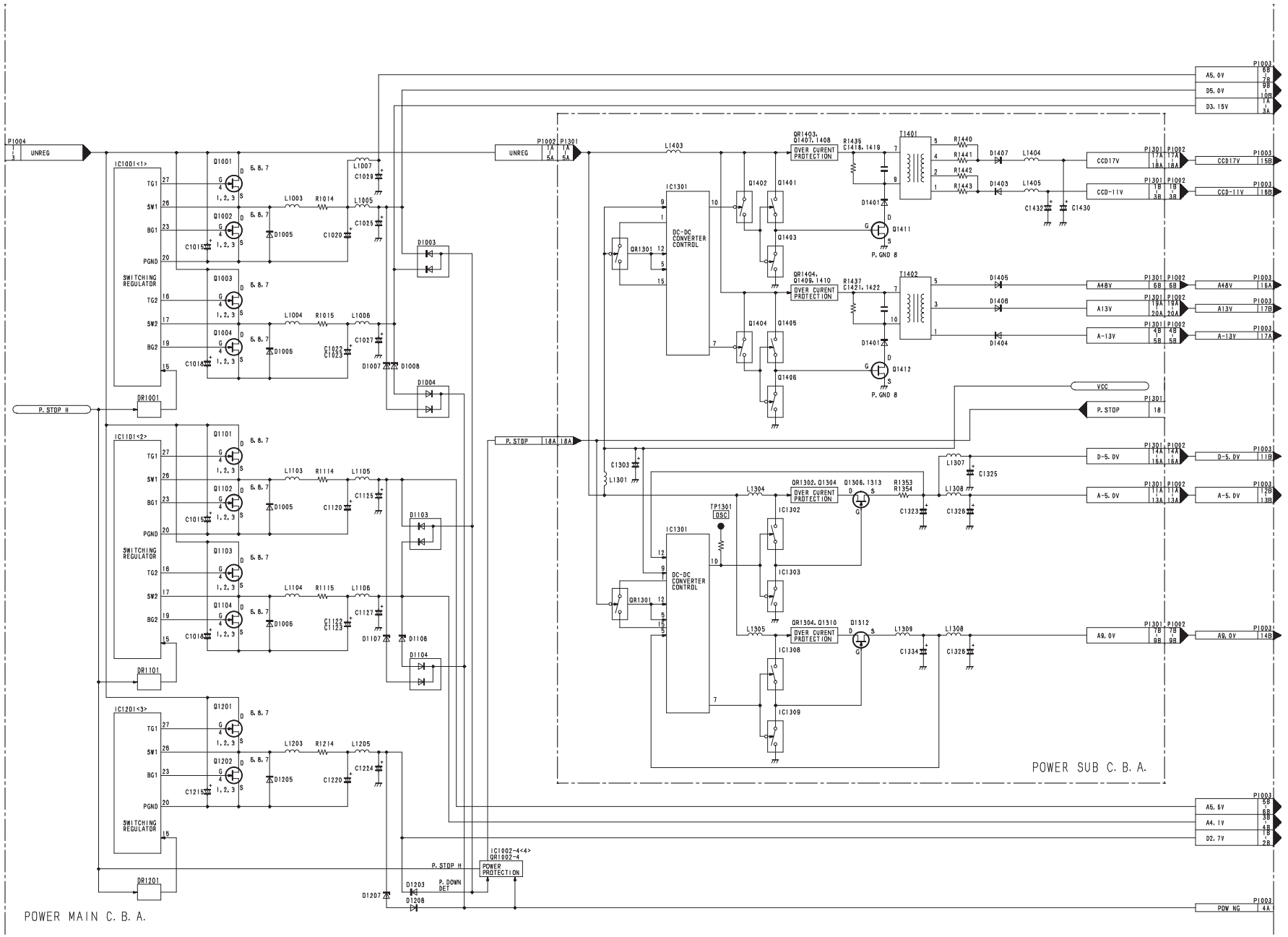


BLK-11

VTR SYSCON/SD CARD BLOCK DIAGRAM

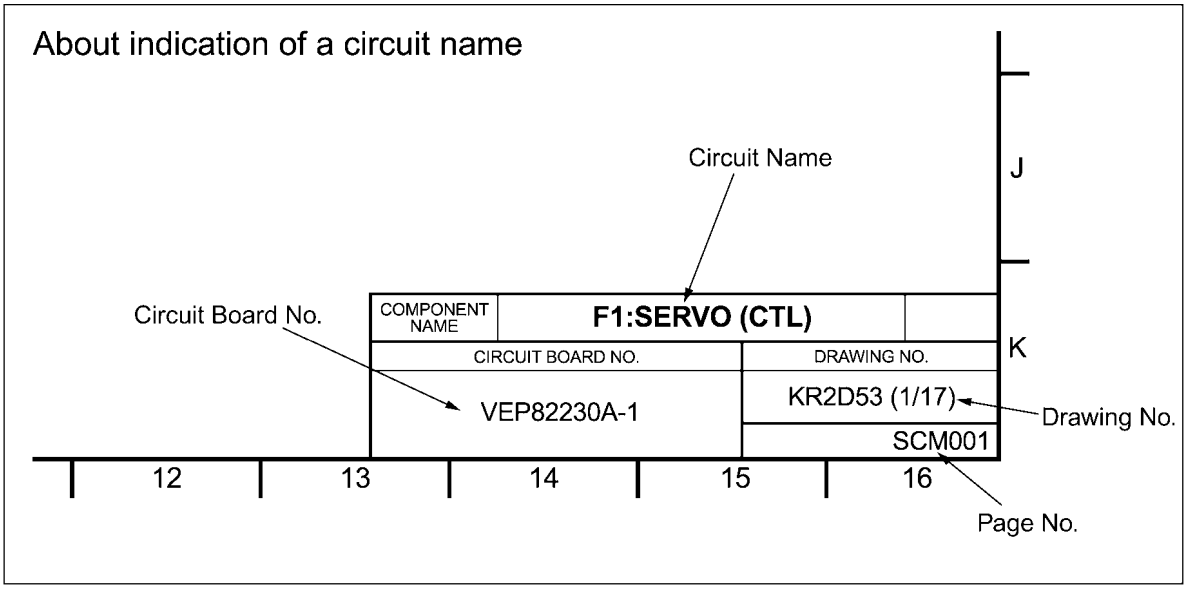


POWER MAIN/SUB BLOCK DIAGRAM



SECTION 7

SCHEMATIC DIAGRAMS



NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION9

CAUTION

THE ▭ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

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VTR OVERALL (1/1)..... SCM002

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CAMERA MOTOR (1/1) SCM003

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VTR MOTHER (1/3)..... SCM004
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INT CONNECT
INT CONNECT (1/1)..... SCM007

CCD SENSOR
SENSOR (1/4) SCM008
SENSOR (2/4) SCM009
SENSOR (3/4) SCM010
SENSOR (4/4) SCM011

TG
TG (1/1) SCM012

MEMORY
MEM-720P (1/1) SCM013

DRIVE
DRIVE (1/1) SCM014

PRE AMP
PRE AMP (1/4) SCM015
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PRE PROCESS
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DSP-720P (5/5) SCM028

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HEAD BUFF (RP HA) (4/6) SCM041
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RF EQ (EQ Bch) (2/18)..... SCM045
RF EQ (EQ Cch) (3/18)..... SCM046
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RF EQ (AMP) (5/18)..... SCM048
RF EQ (EVR) (6/18)..... SCM049
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RF EQ (ENVDET) (12/18)..... SCM055
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VM (ECC) (7/11) SCM078

VM (SYNC CLK) (8/11) SCM079
VM (CLOCK DIST) (9/11).....SCM080
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VTR SYSCON (8/8).....SCM090

AUDIO LCD

AUDIO LCD (CH1 INPUT) (1/12).....SCM091
AUDIO LCD (CH2 INPUT) (2/12).....SCM092
AUDIO LCD (LIM/AGC) (3/12) SCM093
AUDIO LCD (A/D D/A) (4/12).....SCM094
AUDIO LCD (OUTPUT) (5/12) SCM095
AUDIO LCD (MONITOR) (6/12).....SCM096
AUDIO LCD (CUE DELAY) (7/12).....SCM097
AUDIO LCD (CUE) (8/12) SCM098
AUDIO LCD (CONNECTOR) (9/12).....SCM099
AUDIO LCD (uCOM) (10/12).....SCM100
AUDIO LCD (LCD DRIVE) (11/12).....SCM101
AUDIO LCD (RTC) (12/12).....SCM102

REAR JACK

REAR JACK (1/1).....SCM103

REAR SW

REAR SW (1/1) SCM104

CUE

CUE (1/1).....SCM105

POWER MAIN

POWER MAIN (1/4) SCM106
POWER MAIN (2/4) SCM107
POWER MAIN (3/4) SCM108
POWER MAIN (4/4) SCM109

POWRE SUB

POWER SUB (1/3).....SCM110
POWER SUB (2/3).....SCM111
POWER SUB (3/3).....SCM112

FRONT TOGGLE

FRONT TOGGLE (1/1).....SCM113

JOG MENU

JOG MENU (1/1) SCM114

MONITOR SW

MONITOR (1/1) SCM115

SERVO FLEX

SERVO FLEX (1/1)..... SCM116

HD SDI TX

HD SDI TX (1/2)..... SCM117
HD SDI TX (2/2)..... SCM118

SD CARD

SD CARD (1/1) SCM119

TOGGLE SW

TOGGLE SW (1/1)..... SCM120

SYNCHRO SW

SYNVHRO SW (1/1)..... SCM121

USER SW

USER SW (1/1)..... SCM122

MENU SW

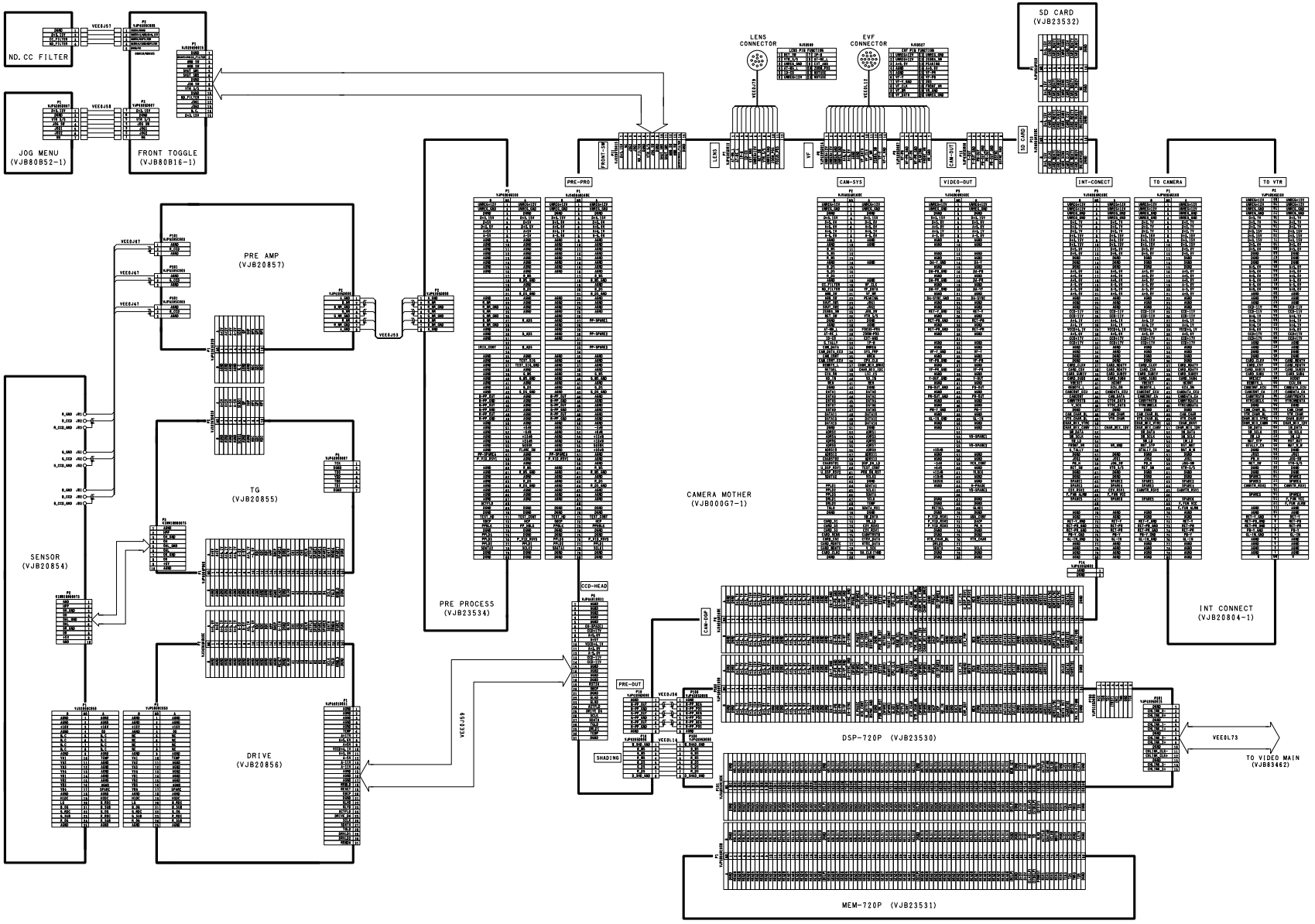
MENU SW (1/1)..... SCM123

FRONT MIC

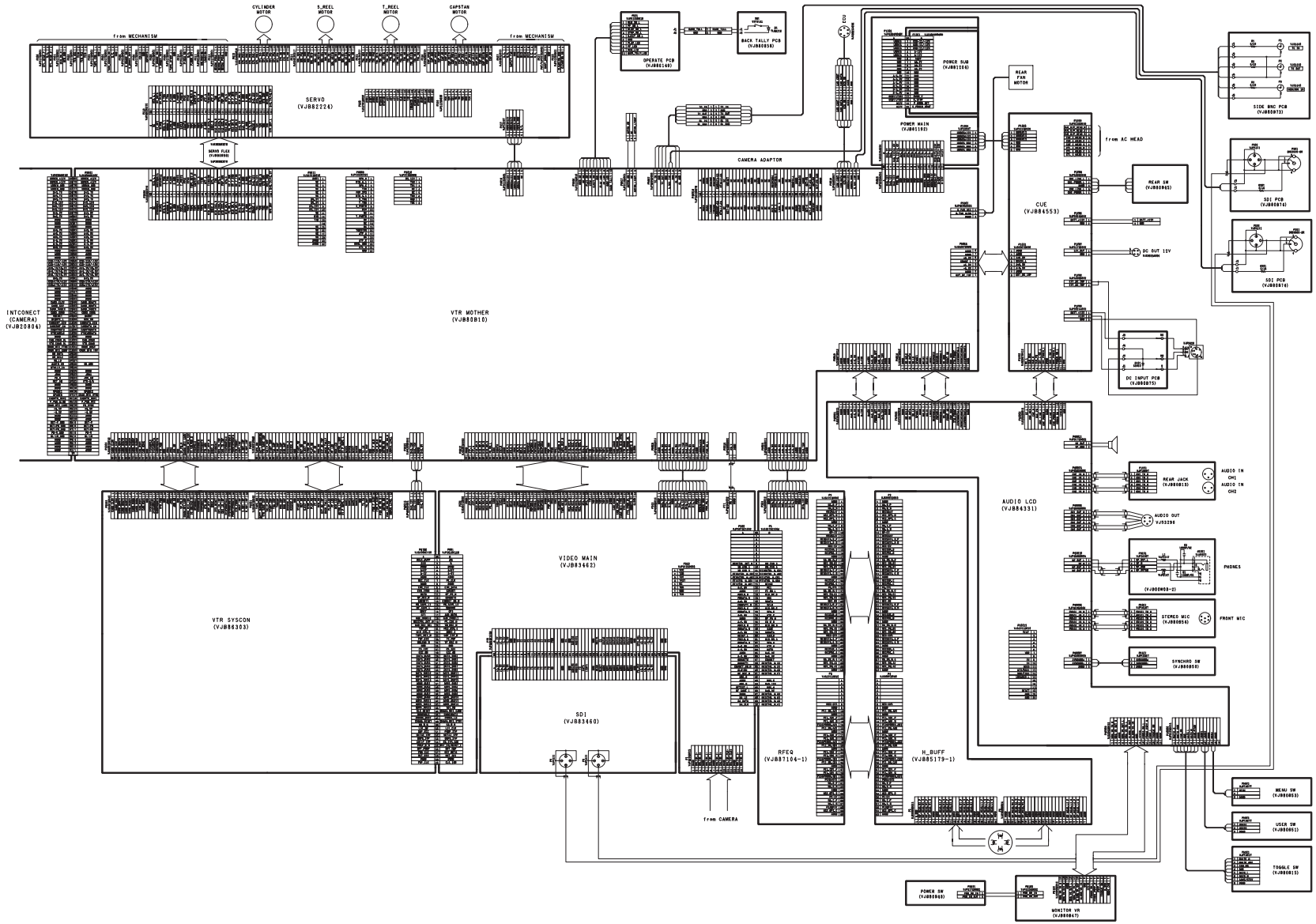
FRONT MIC (1/1) SCM124

EXT DC

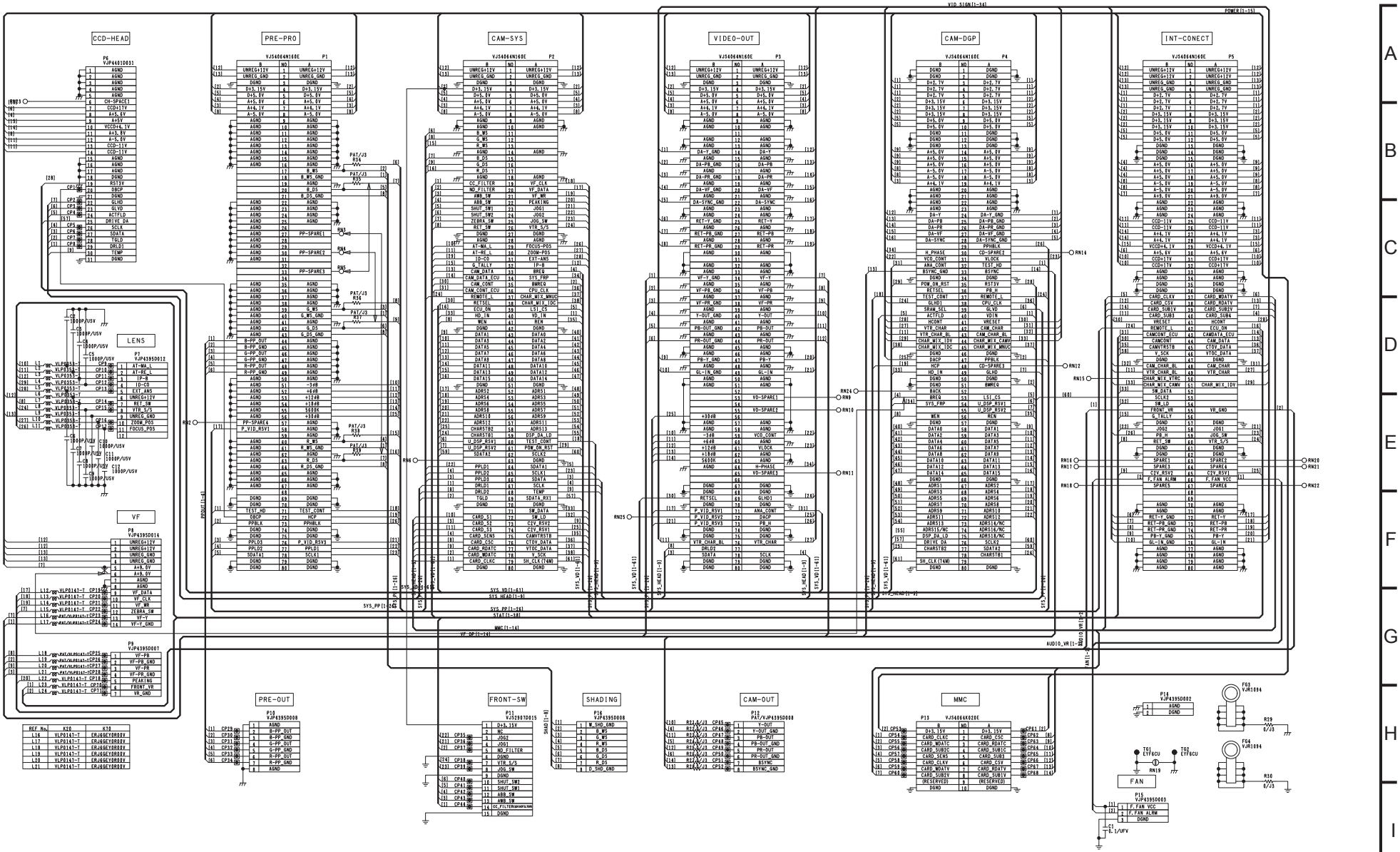
DC INPUT (1/1) SCM125



COMPONENT NAME	CAM OVERALL	01/01
CIRCUIT BOARD NO.	DRAWING NO.	
	KR9H41 (1/1)	
	SCM001	

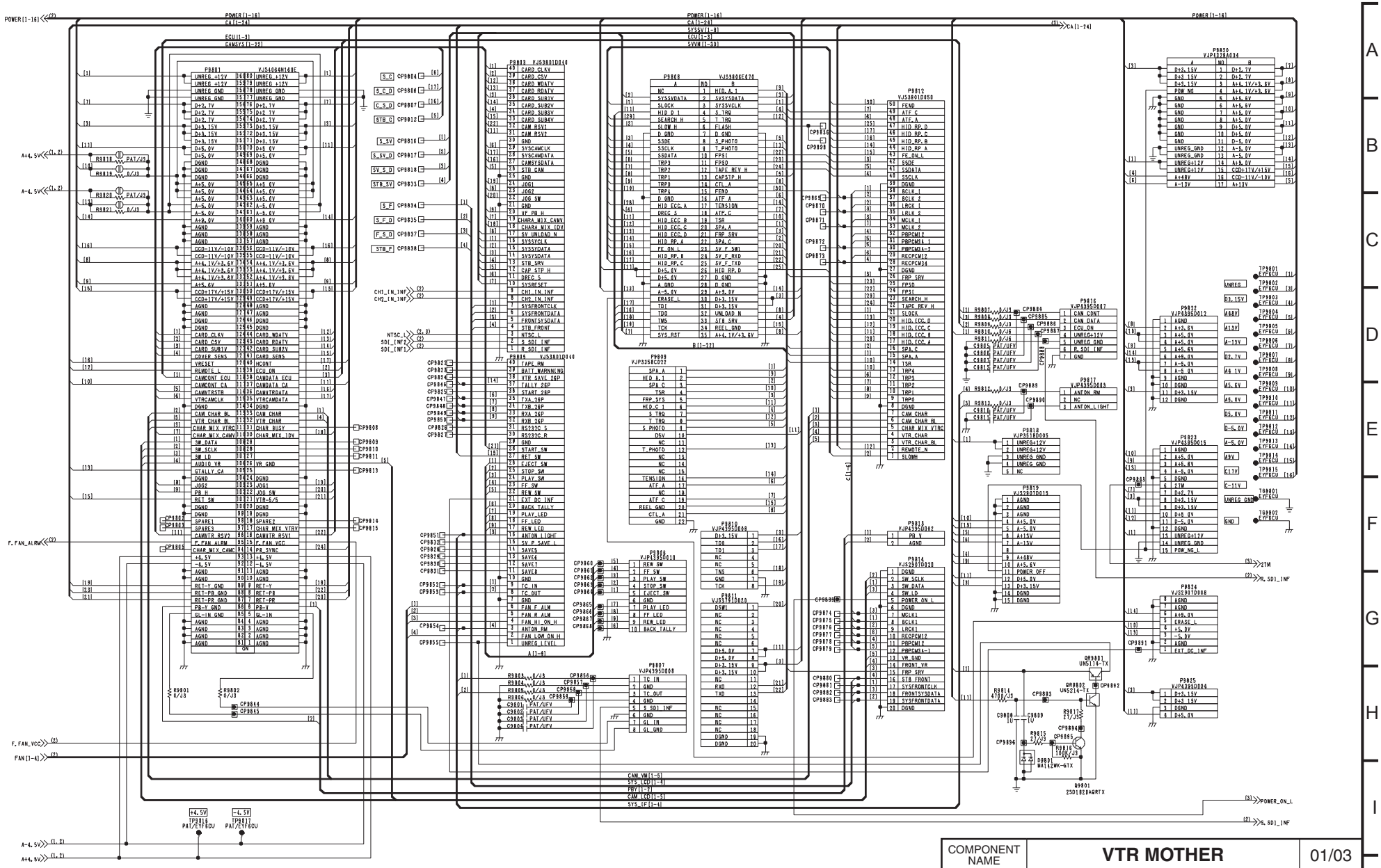


COMPONENT NAME	VTR OVERAL	01/01
CIRCUIT BOARD NO.		DRAWING NO.
		KR9H14 (1/1)
		SCM002

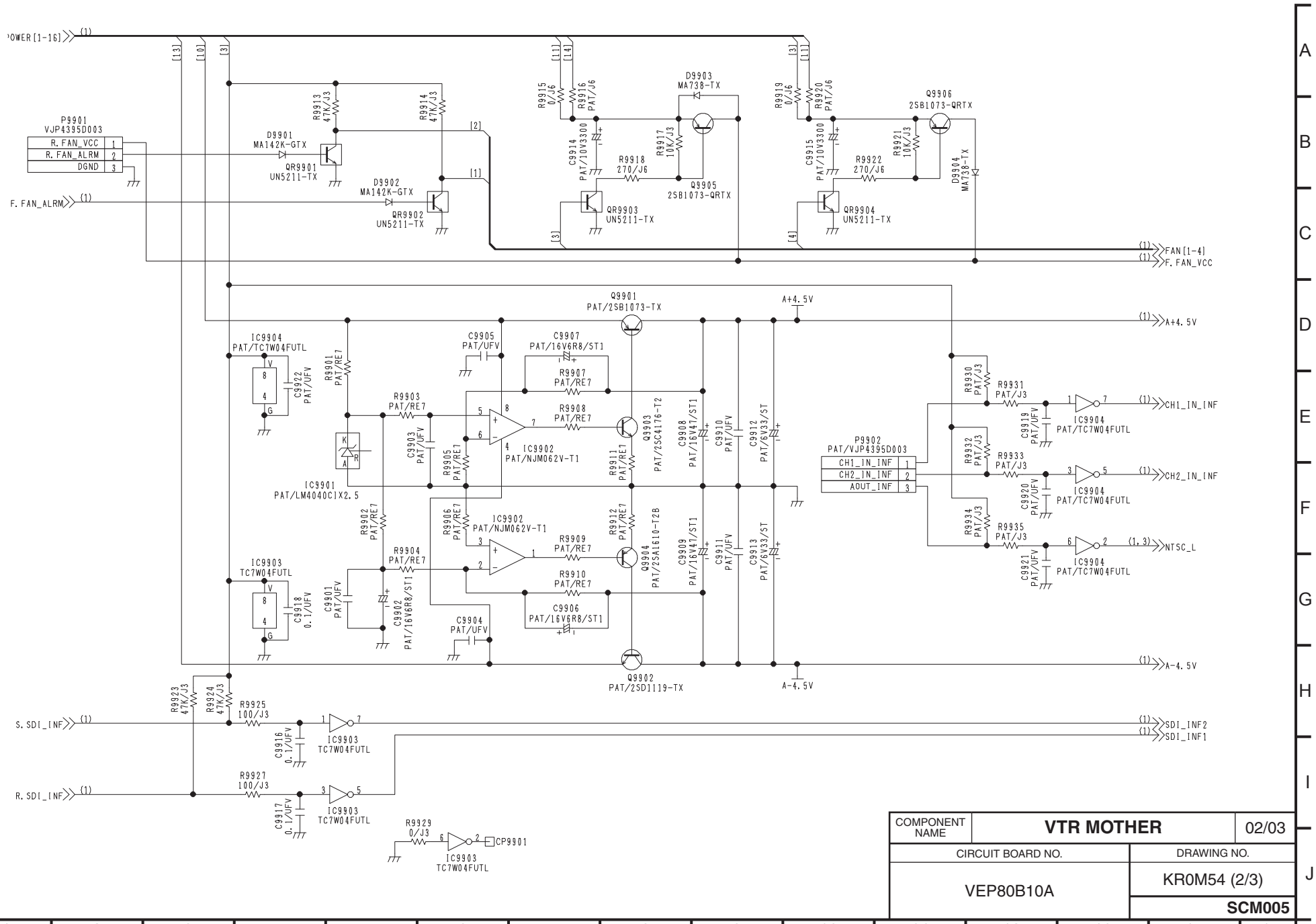


REF No.	KX6	KT8
L16	VLP0147-T	ERJ6GEY0R00V
L17	VLP0147-T	ERJ6GEY0R00V
L18	VLP0147-T	ERJ6GEY0R00V
L19	VLP0147-T	ERJ6GEY0R00V
L20	VLP0147-T	ERJ6GEY0R00V
L21	VLP0147-T	ERJ6GEY0R00V

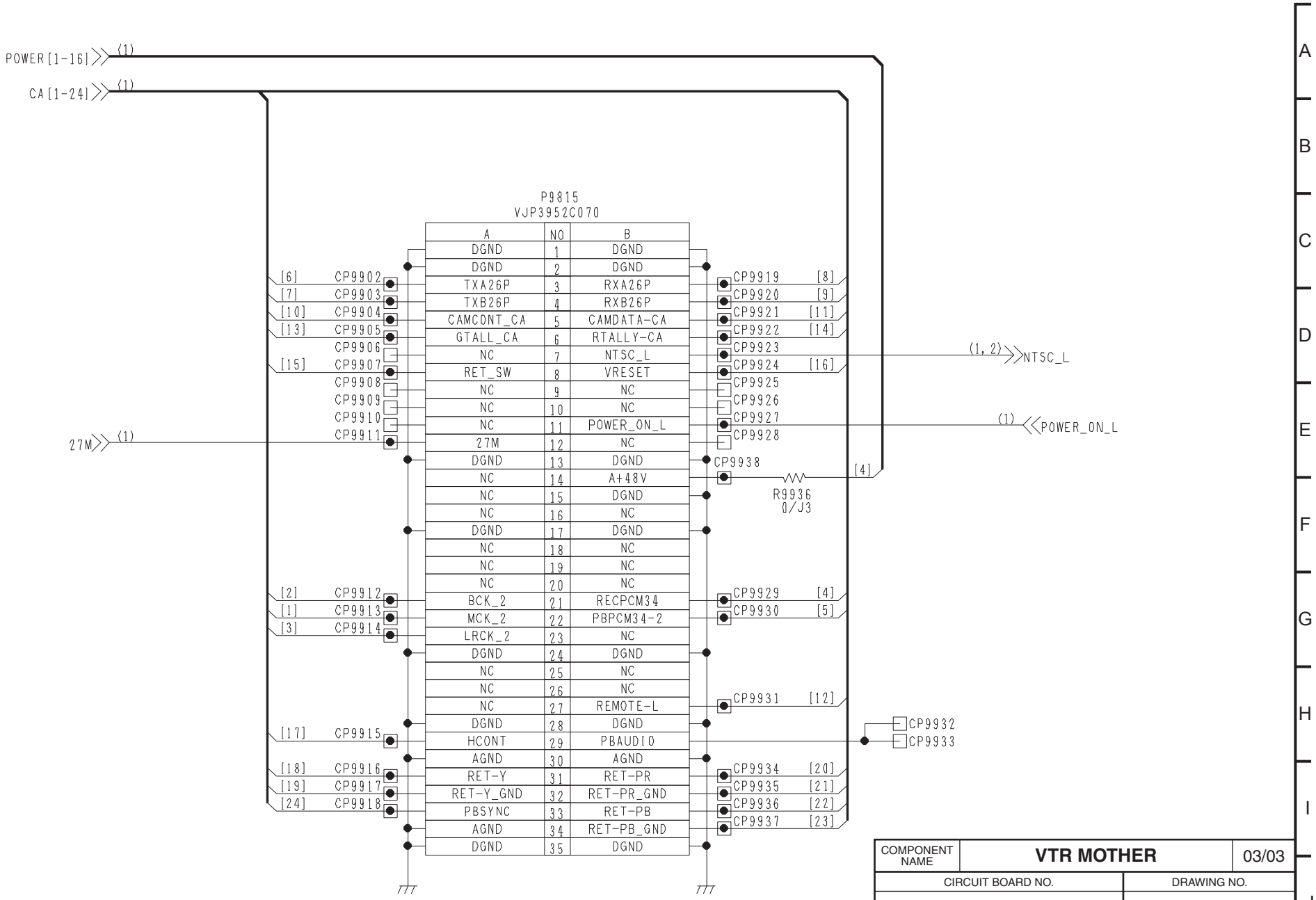
COMPONENT NAME	CAMERA MOTOR	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP000G7B		KR0N32 (1/1)-1
		SCM003

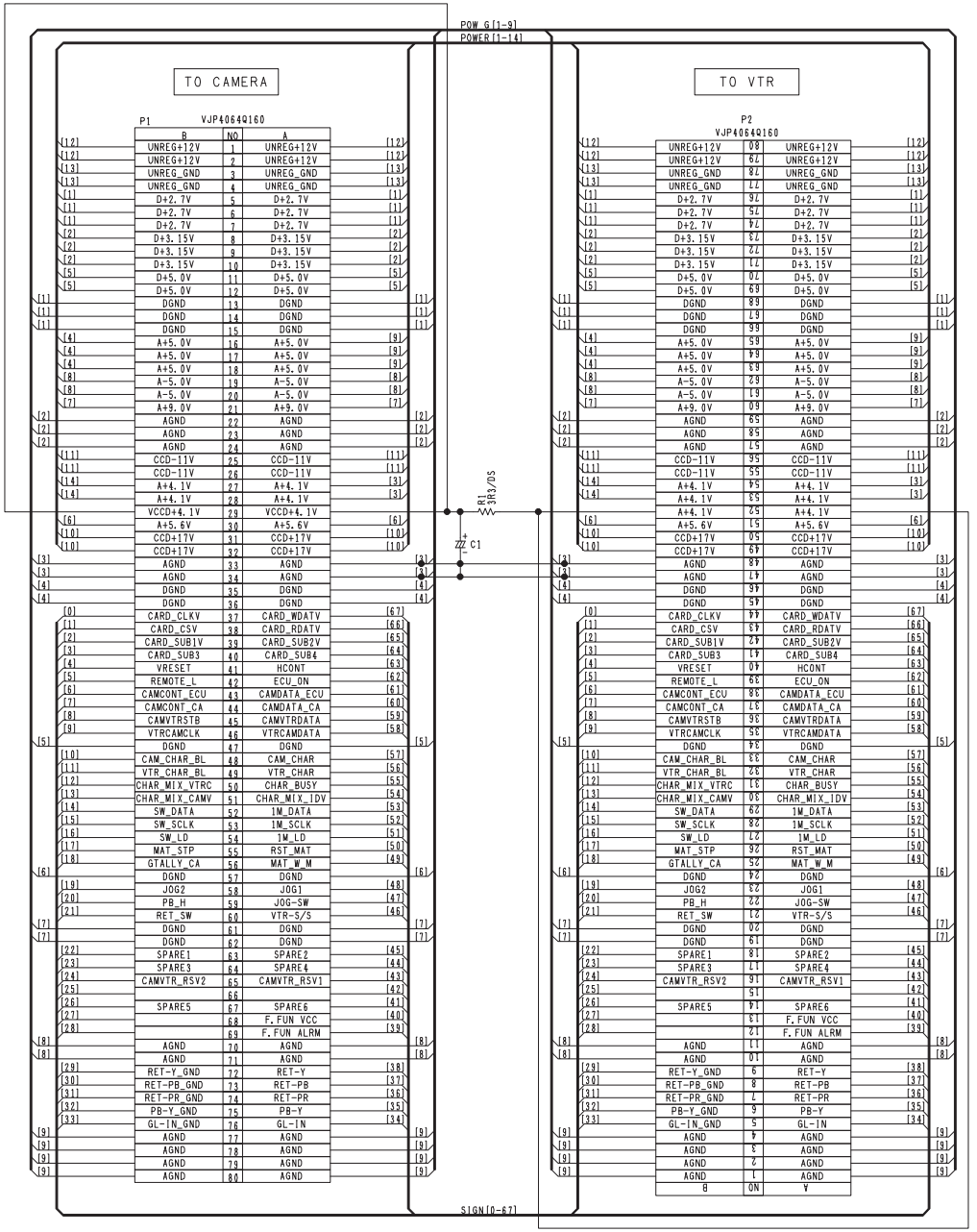


COMPONENT NAME	**VTR MOTHER**	01/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B10A		KR0M54 (1/3)
		SCM004



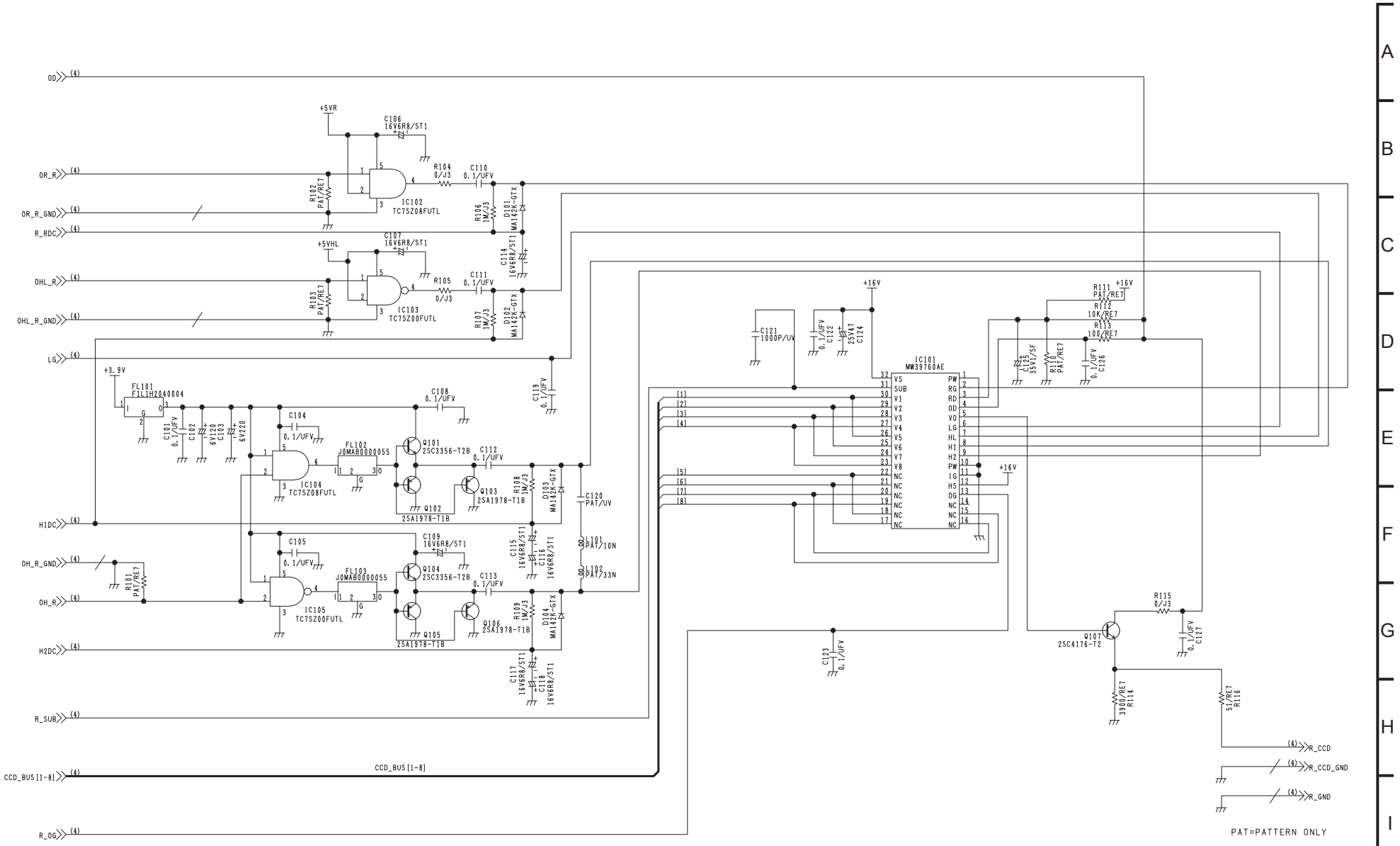
COMPONENT NAME	**VTR MOTHER**	02/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B10A		KR0M54 (2/3)
		SCM005


POWER[1-16] (1)
CA[1-24] (1)
P9815
VJP3952C070
A NO B
1 DGND DGND
2 DGND DGND
3 TXA26P RXA26P
4 TXB26P RXB26P
5 CAMCONT_CA CAMDATA-CA
6 GTALL_CA RTALLY-CA
7 NC NTSC_L
8 RET_SW VRESET
9 NC NC
10 NC NC
11 NC POWER_ON_L
12 27M NC
13 DGND DGND
14 NC A+48V
15 NC DGND
16 NC NC
17 DGND DGND
18 NC NC
19 NC NC
20 NC NC
21 BCK_2 RECPCM34
22 MCK_2 PBPCM34-2
23 LRCK_2 NC
24 DGND DGND
25 NC NC
26 NC NC
27 NC REMOTE-L
28 DGND DGND
29 HCONT PBAUDIO
30 AGND AGND
31 RET-Y RET-PR
32 RET-Y_GND RET-PR_GND
33 PBSYNC RET-PB
34 AGND RET-PB_GND
35 DGND DGND
[6] CP9902
[7] CP9903
[10] CP9904
[13] CP9905
CP9906
[15] CP9907
CP9908
CP9909
CP9910
CP9911
27M (1)
[2] CP9912
[1] CP9913
[3] CP9914
[17] CP9915
[18] CP9916
[19] CP9917
[24] CP9918
CP9919 [8]
CP9920 [9]
CP9921 [11]
CP9922 [14]
CP9923
CP9924 [16]
CP9925
CP9926
CP9927
CP9928
(1, 2) NTSC_L
(1) POWER_ON_L
CP9938
[4]
R9936
0/J3
CP9929 [4]
CP9930 [5]
CP9931 [12]
CP9932
CP9933
CP9934 [20]
CP9935 [21]
CP9936 [22]
CP9937 [23]
COMPONENT NAME
VTR MOTHER
03/03
CIRCUIT BOARD NO.
VEP80B10A
DRAWING NO.
KR0M54 (3/3)
SCM006
A B C D E F G H I J
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

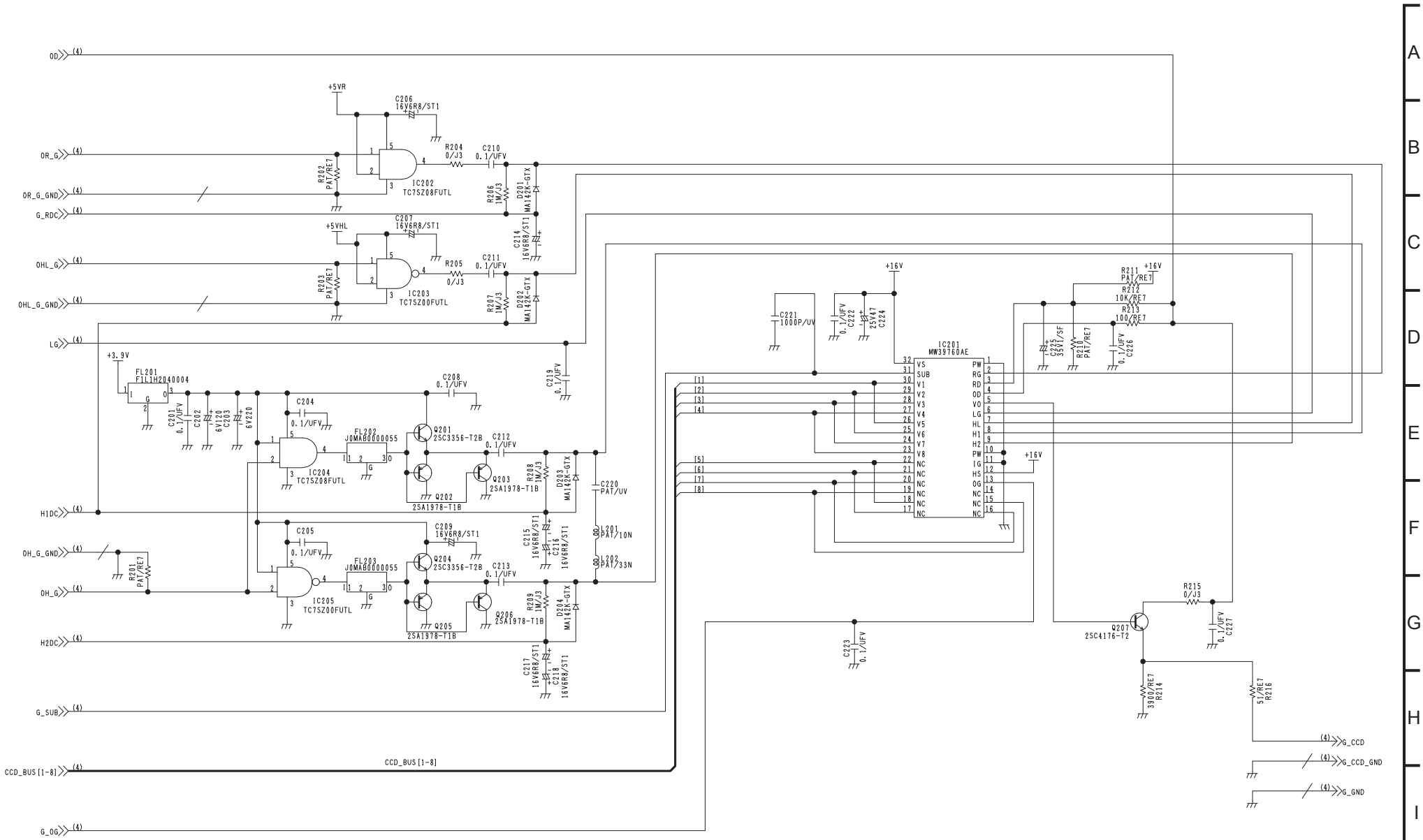


	AJ-HDC27AP
C1	10V1500

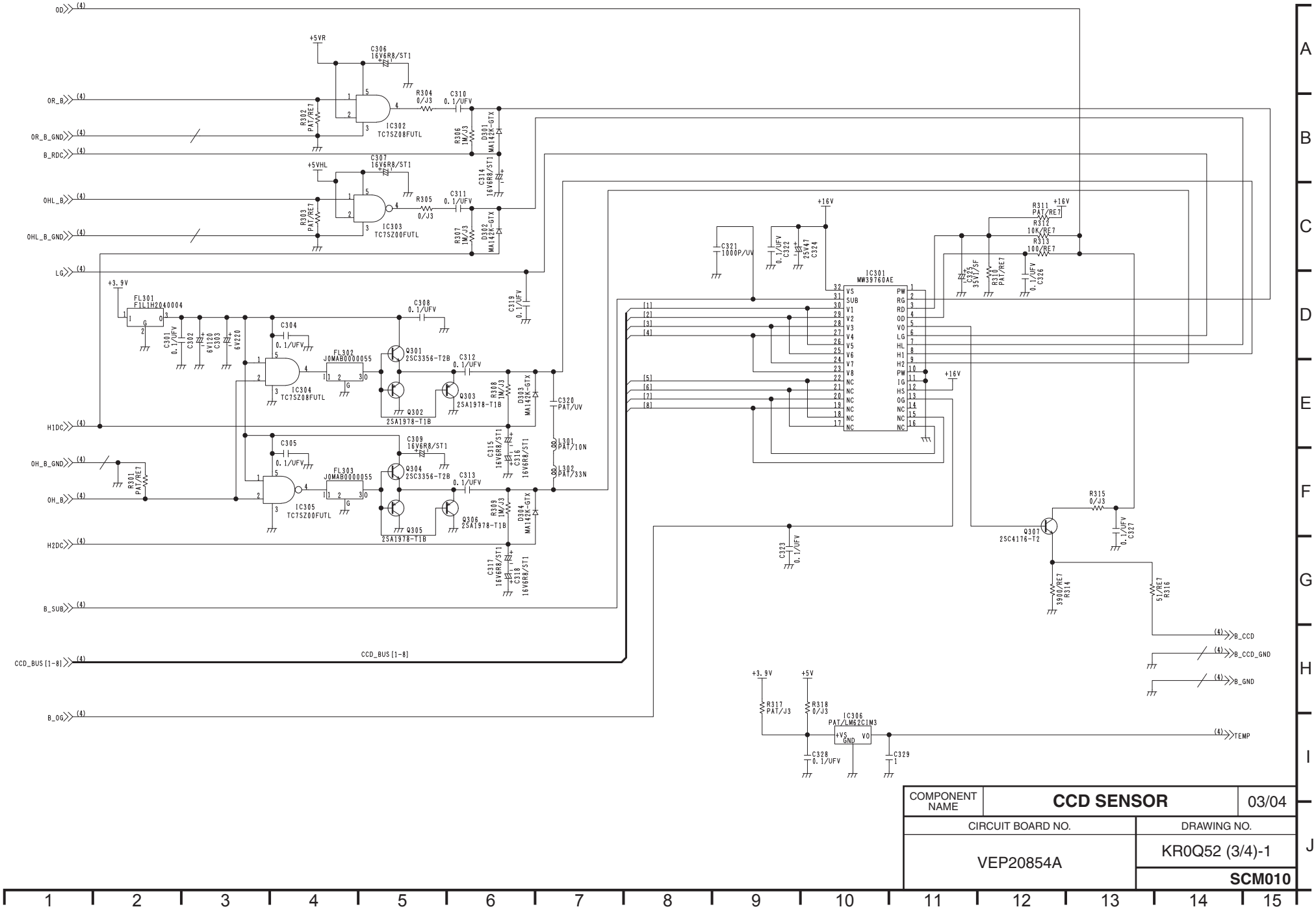
COMPONENT NAME	INT CONNECT	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20804A		KR0N41 (1/1)
		SCM007



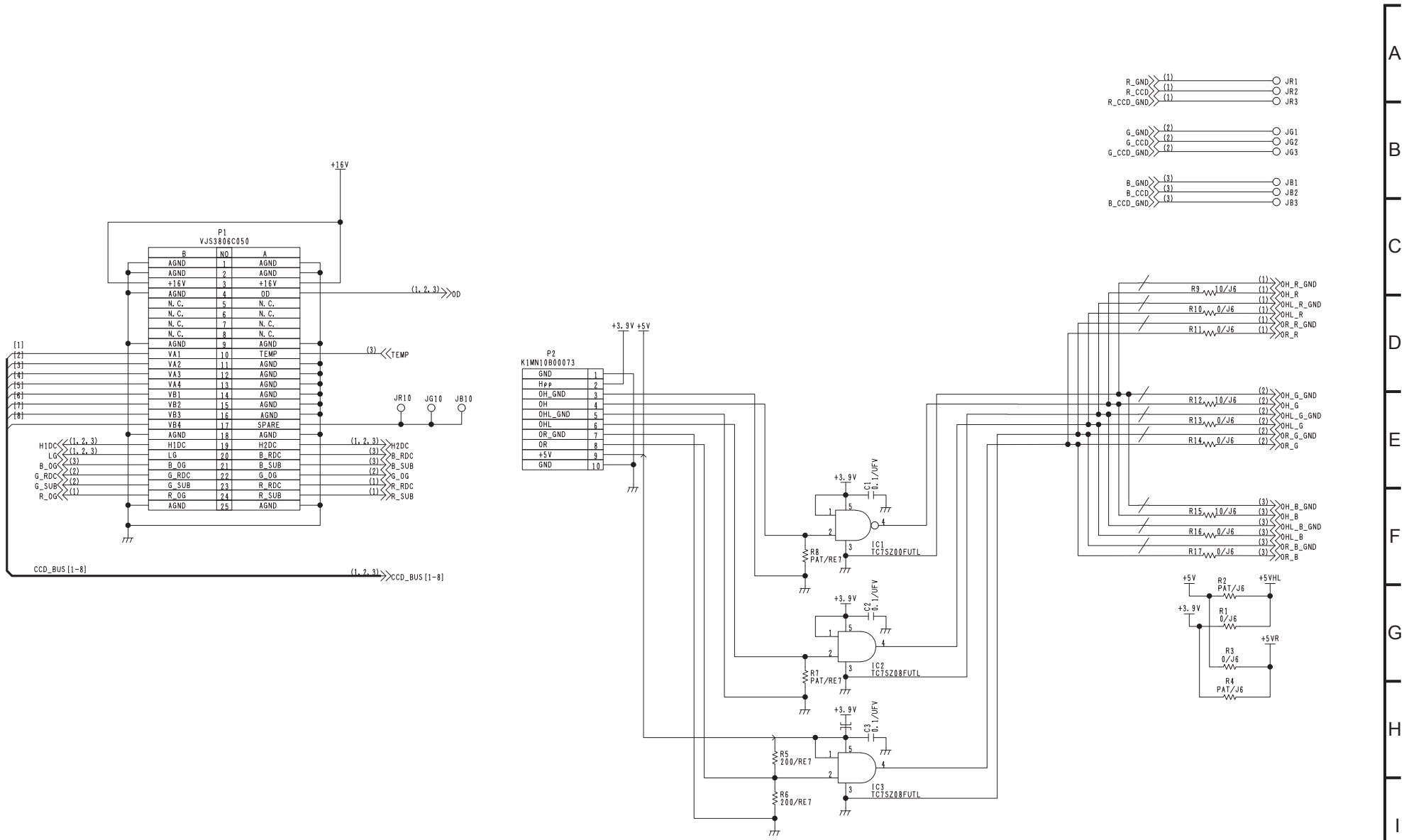
COMPONENT NAME	CCD SENSOR	01/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20854A		KR0Q52 (1/4)-1
		SCM008



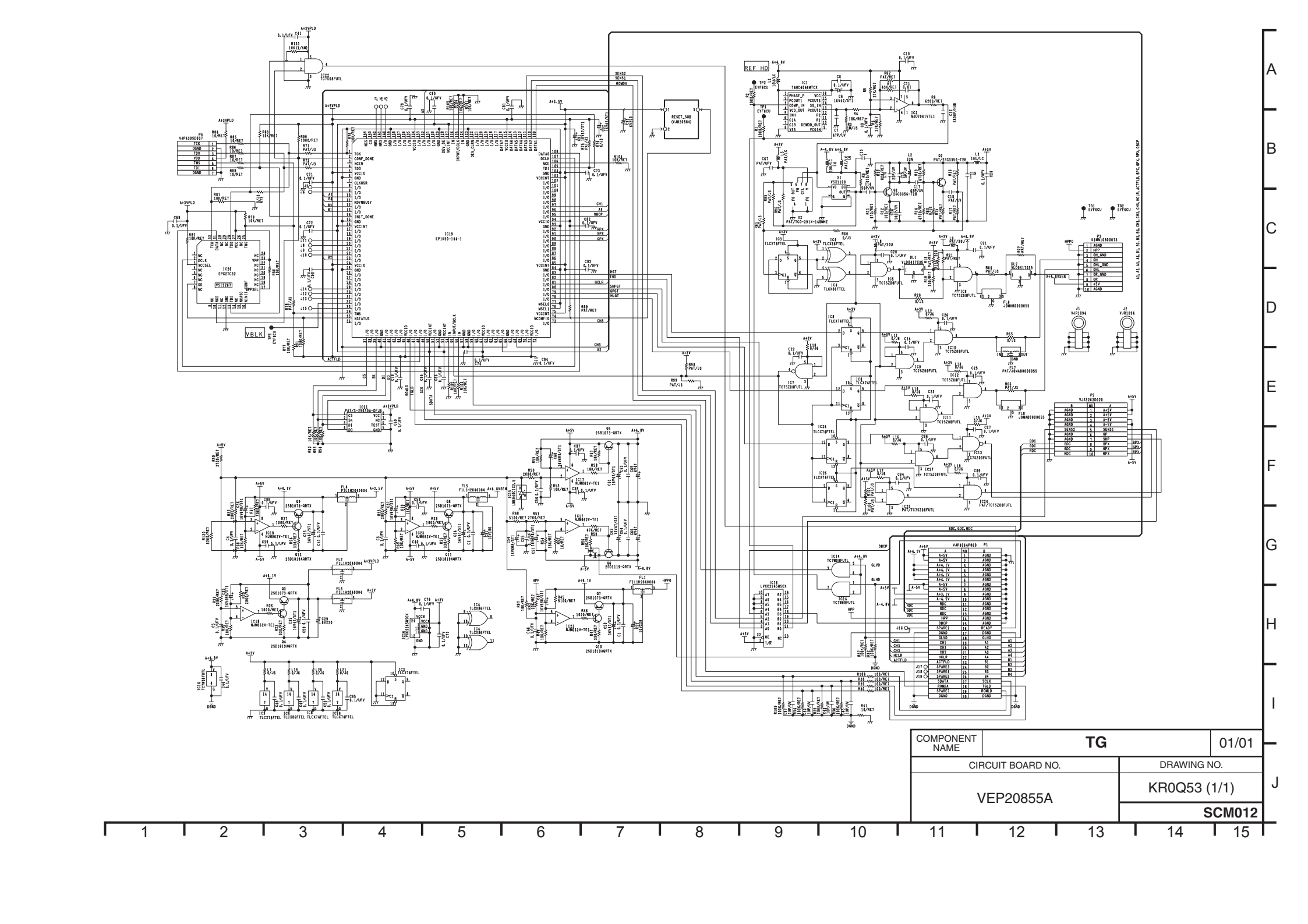
COMPONENT NAME	CCD SENSOR	02/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20854A		KR0Q52 (2/4)-1
		SCM009



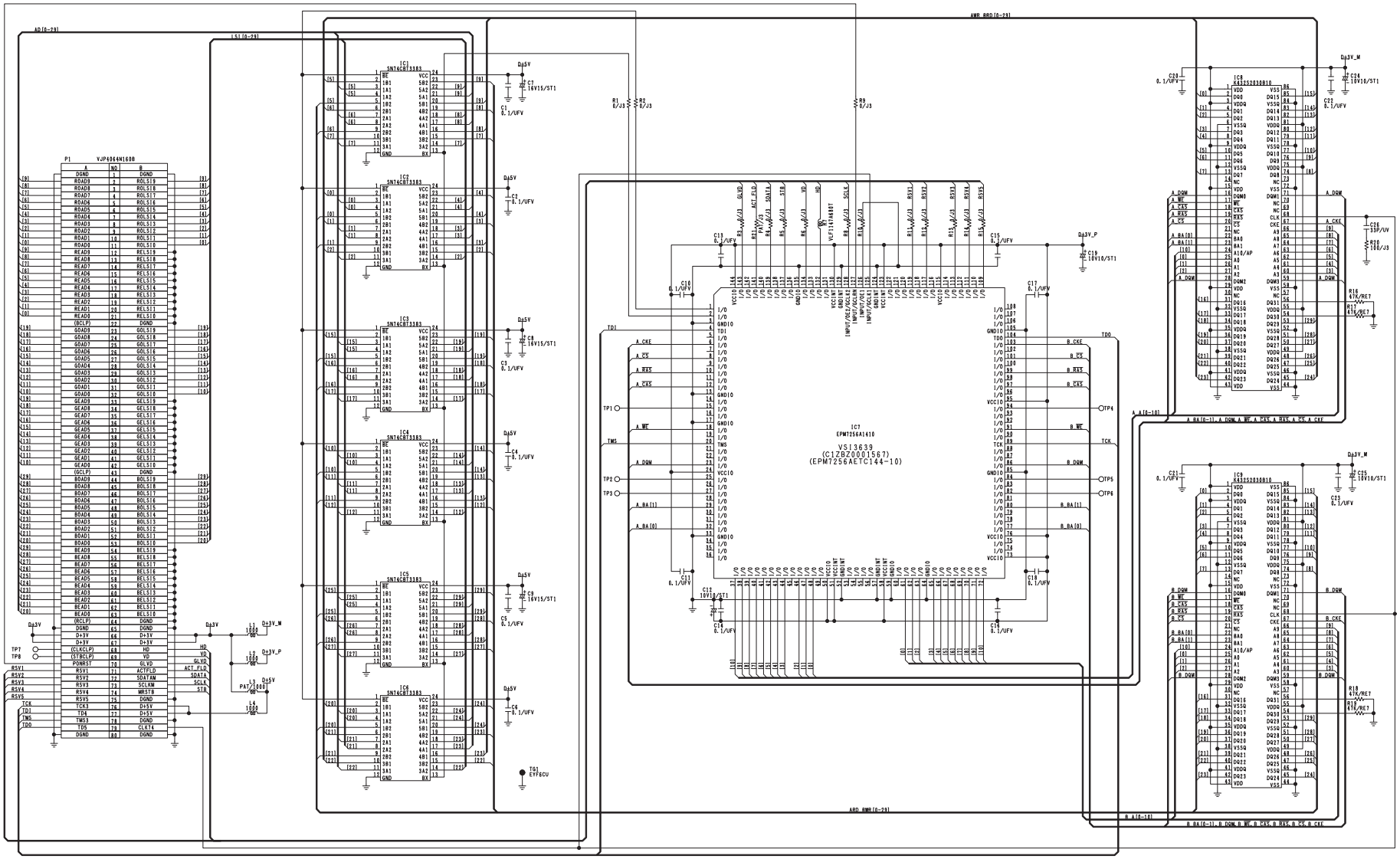
COMPONENT NAME	CCD SENSOR	03/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20854A		KR0Q52 (3/4)-1
		SCM010

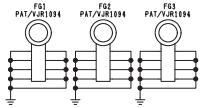


COMPONENT NAME	CCD SENSOR	04/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20854A		KR0Q52 (4/4)
		SCM011

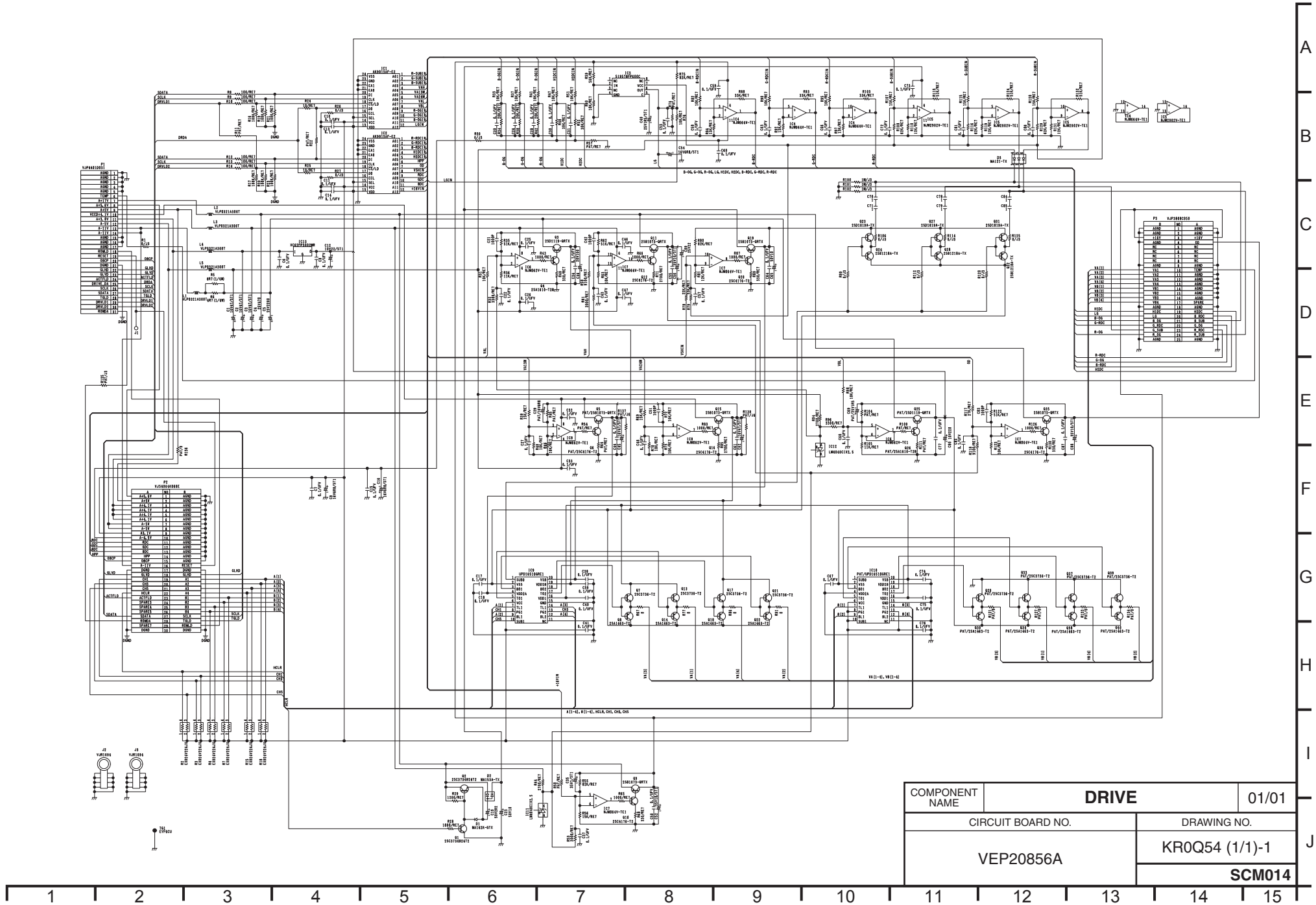


COMPONENT NAME	**TG**	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20855A		KR0Q53 (1/1)
		SCM012

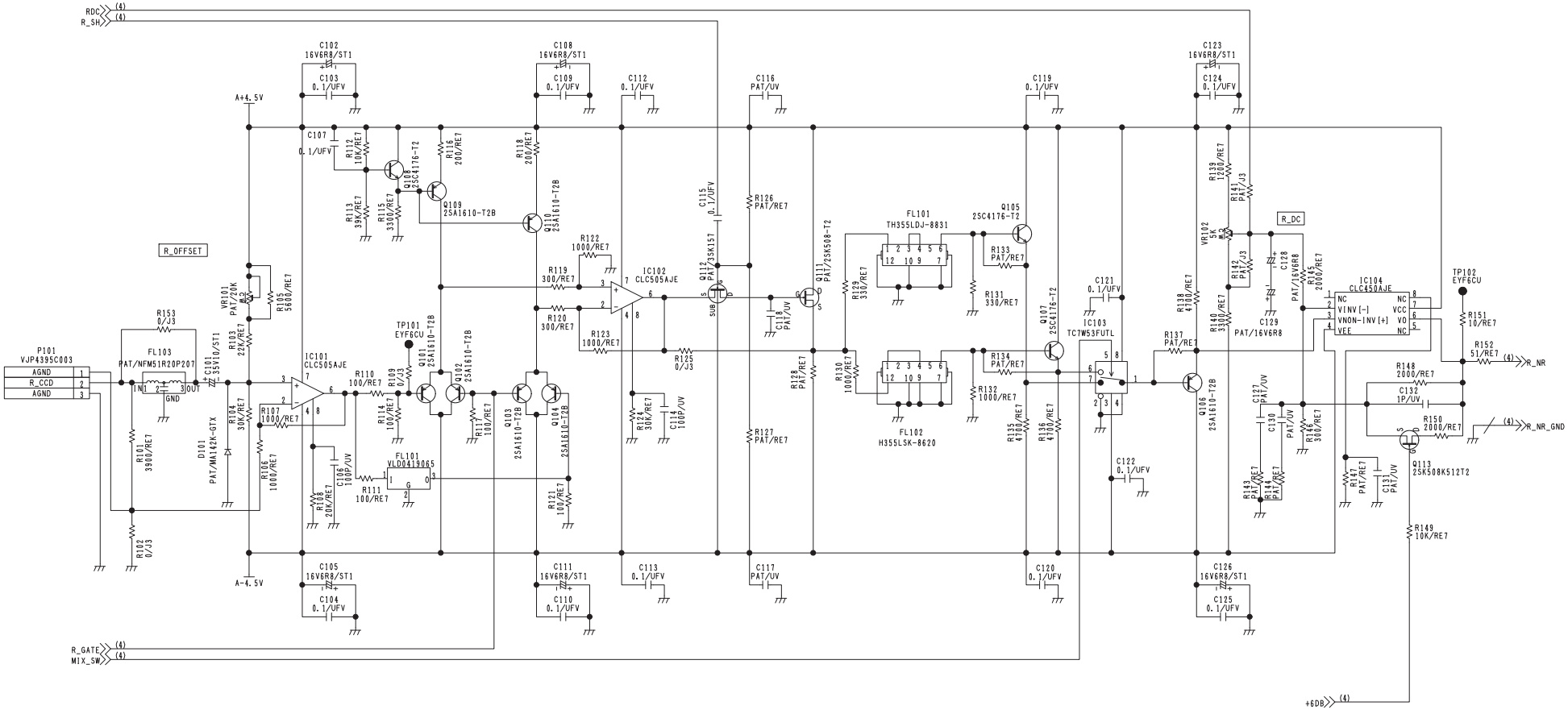




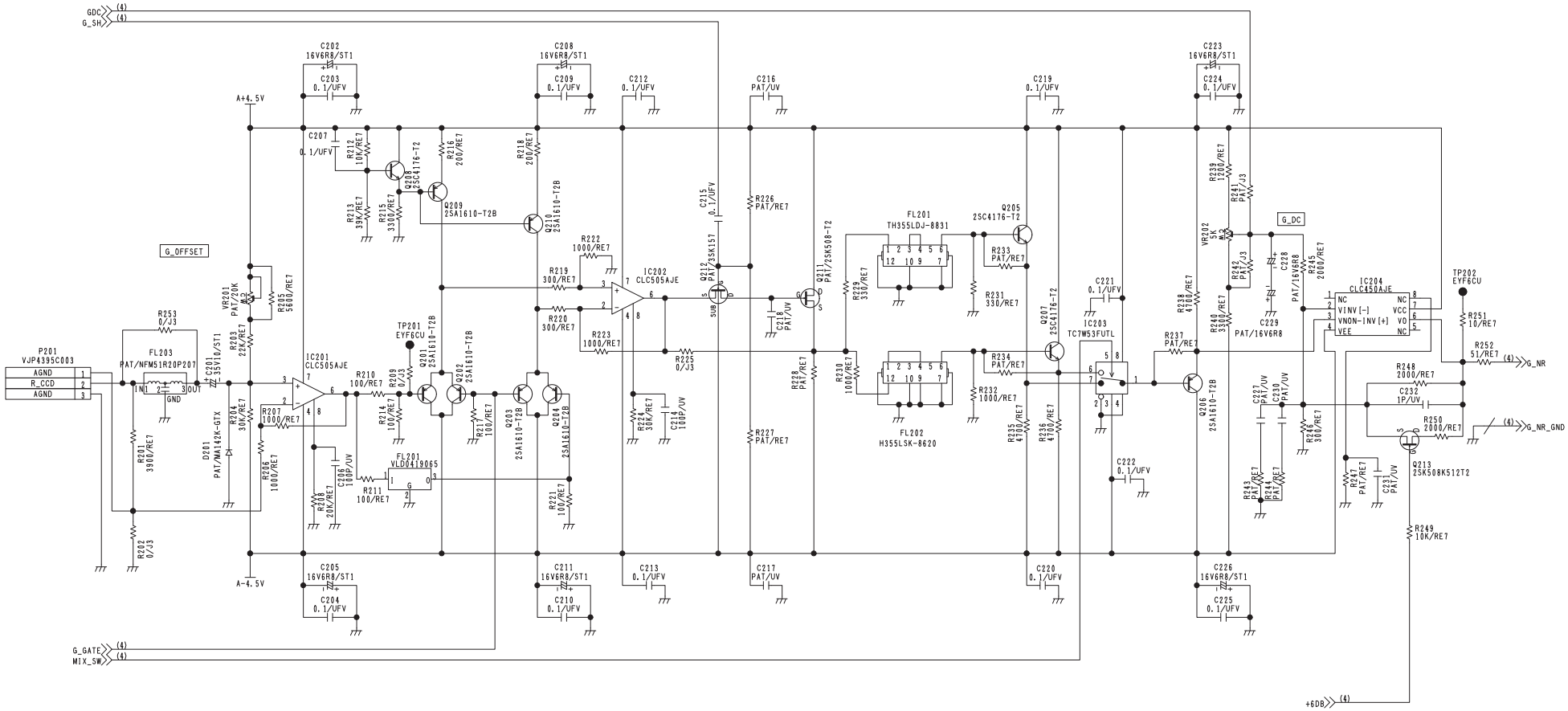
COMPONENT NAME	MEMORY (MEM-720P)	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP23531A		KR30105 (1/1)-1
		SCM013



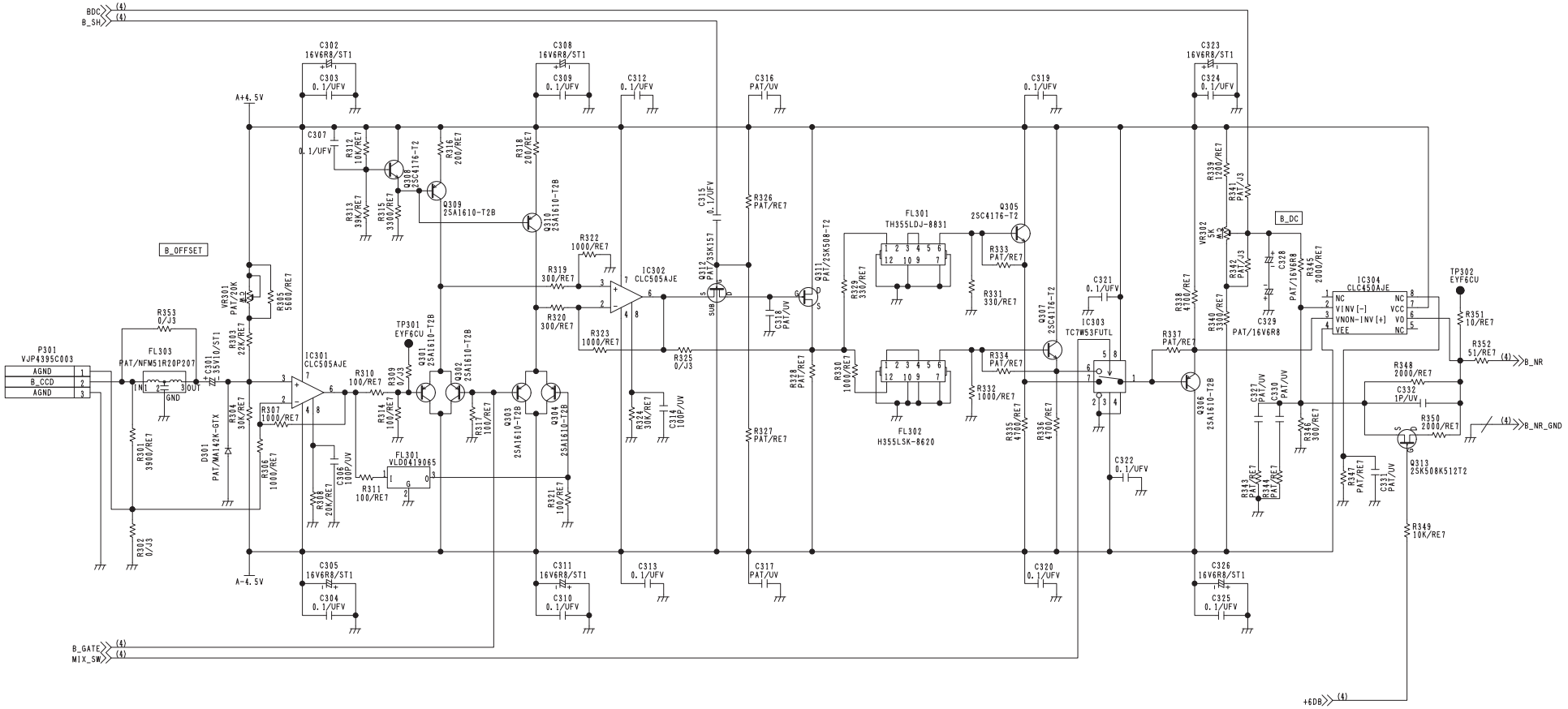
COMPONENT NAME	DRIVE	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20856A		KR0Q54 (1/1)-1
		SCM014



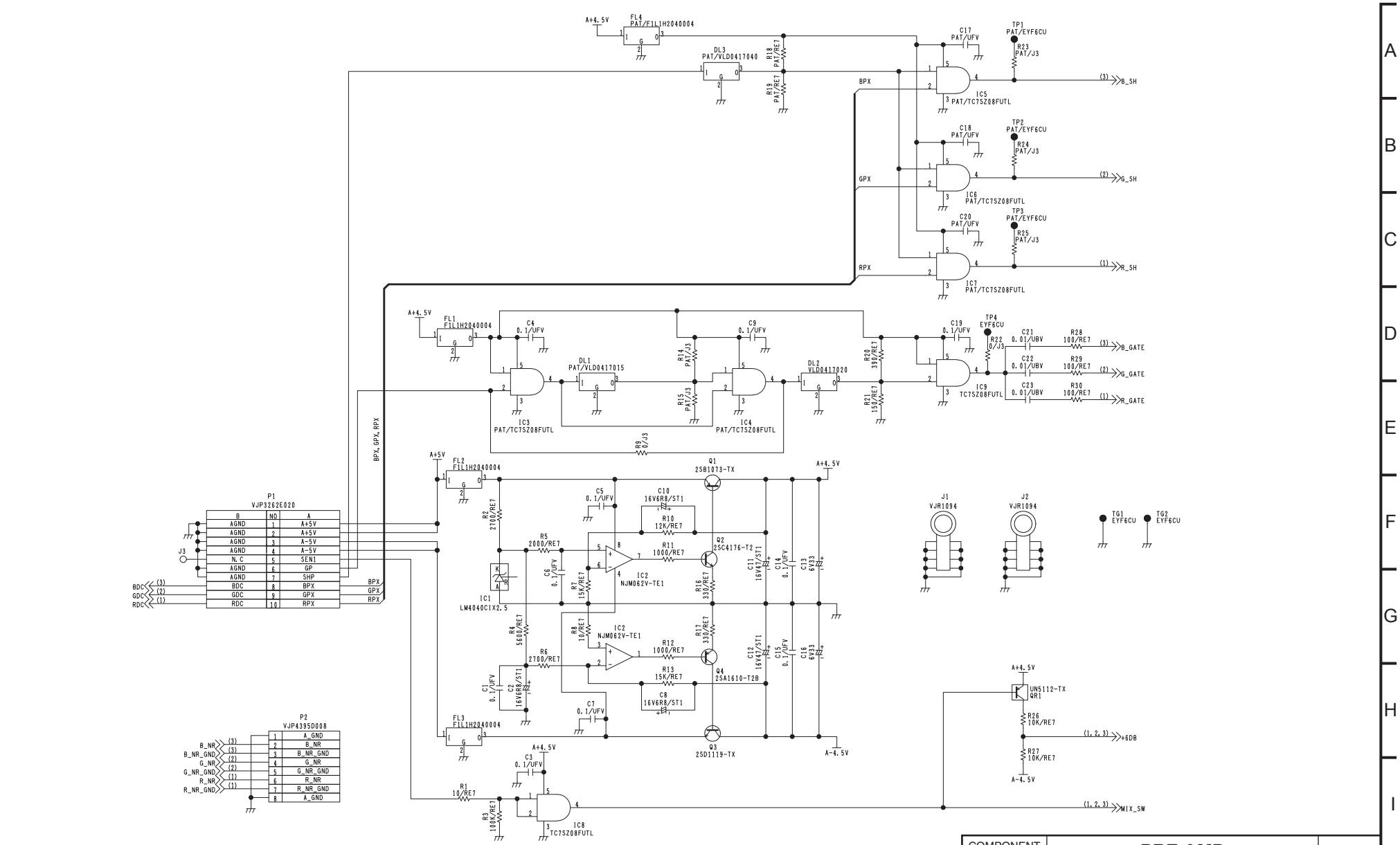
COMPONENT NAME	PRE AMP	01/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20857A		KR0Q55 (1/4)-1
		SCM015



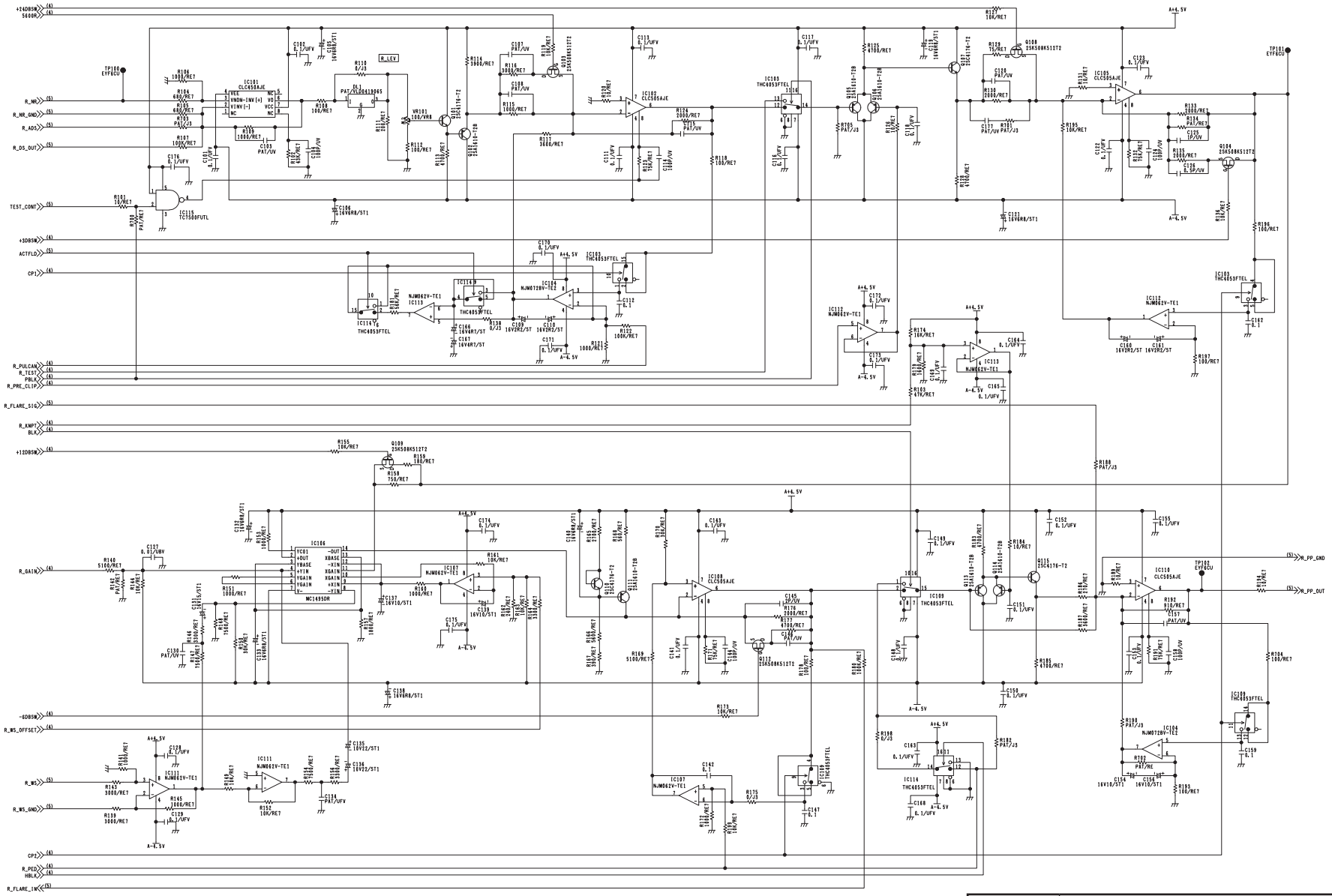
COMPONENT NAME	PRE AMP	02/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20857A		KR0Q55 (2/4)-1
		SCM016



COMPONENT NAME	PRE AMP	03/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20857A		KR0Q55 (3/4)-1
		SCM017



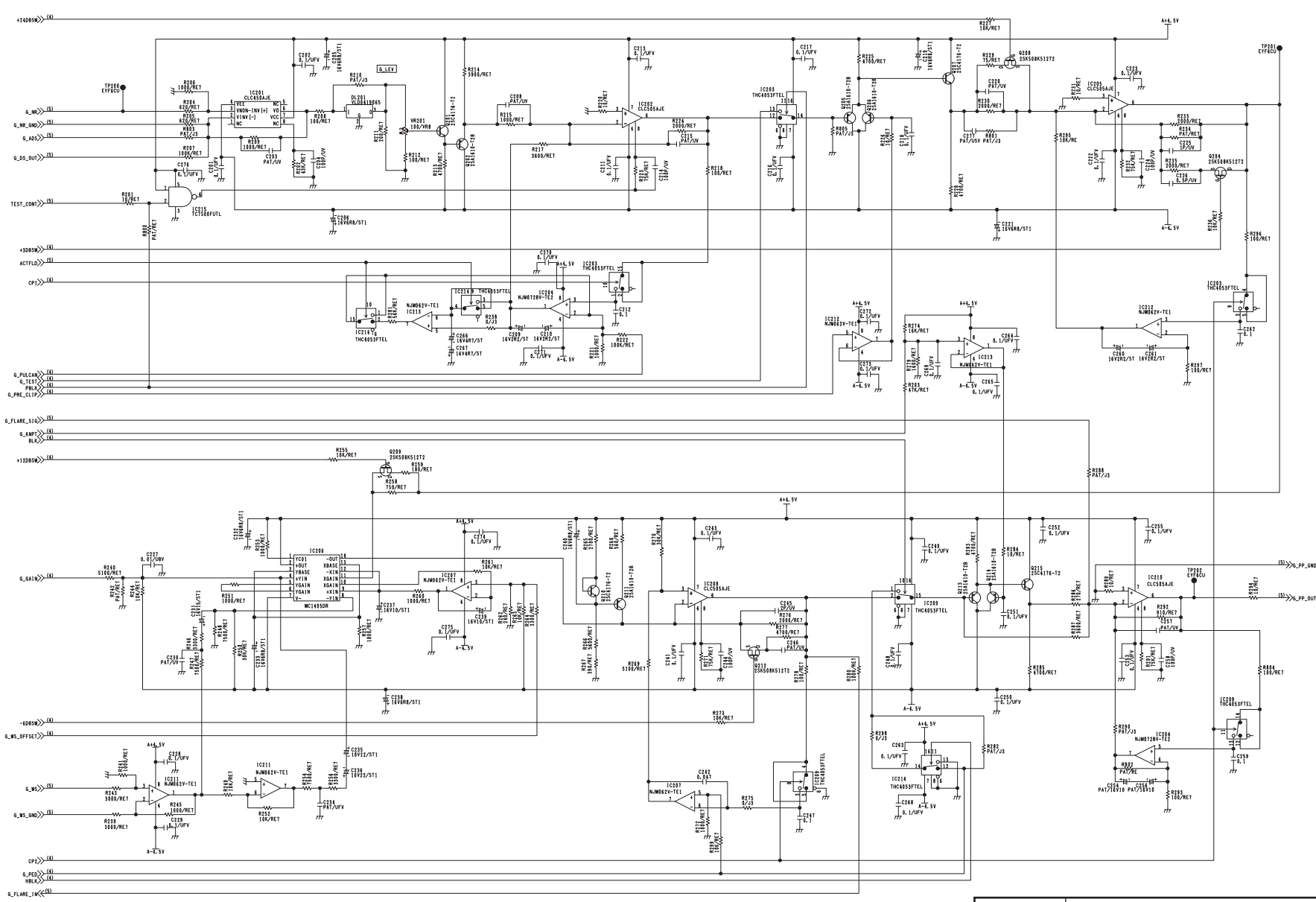
COMPONENT NAME	**PRE AMP**	04/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20857A		KR0Q55 (4/4)
		SCM018



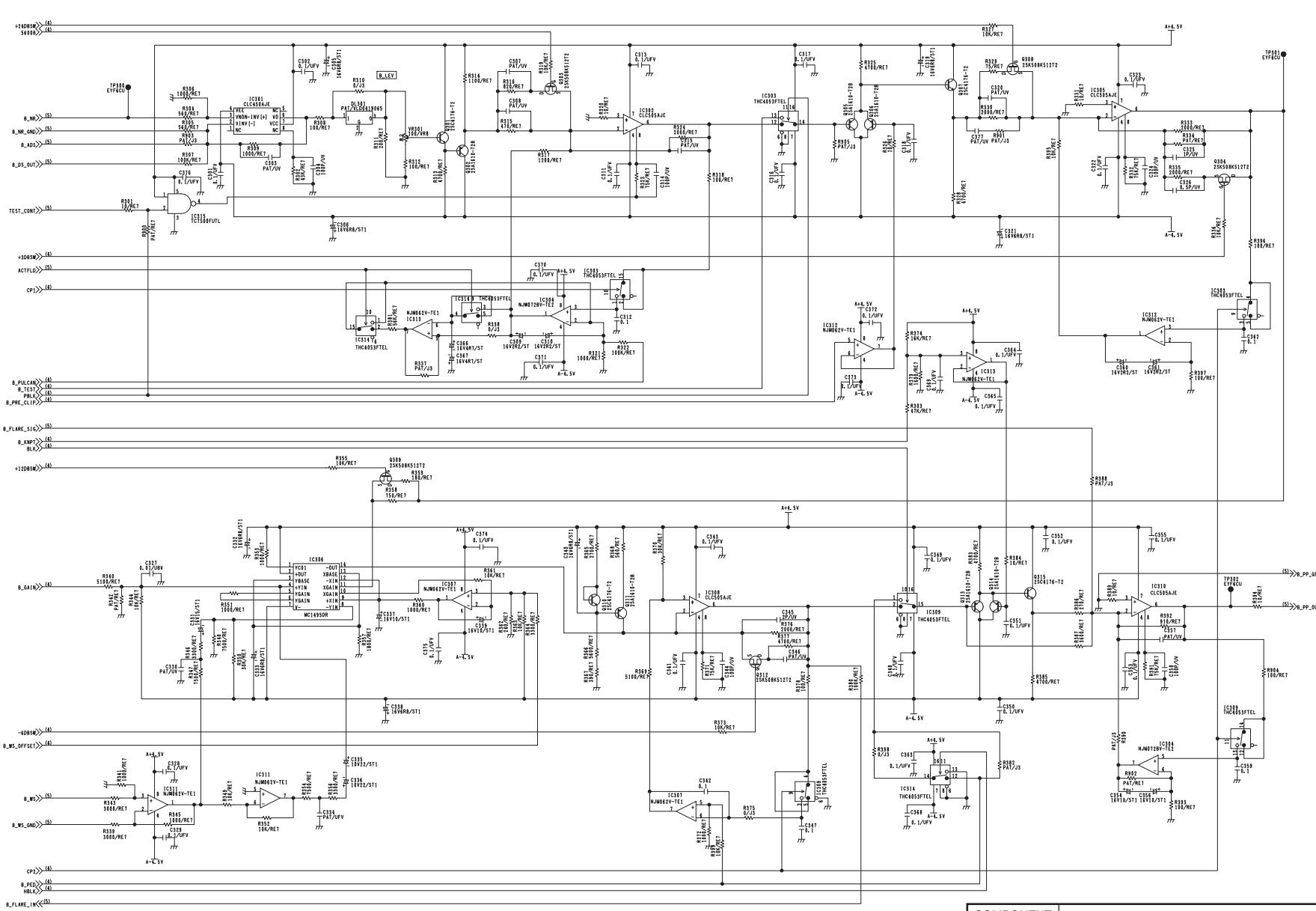
COMPONENT NAME	PRE PROCESS	01/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23534A		KR30128 (1/5)
		SCM019

A B C D E F G H I J

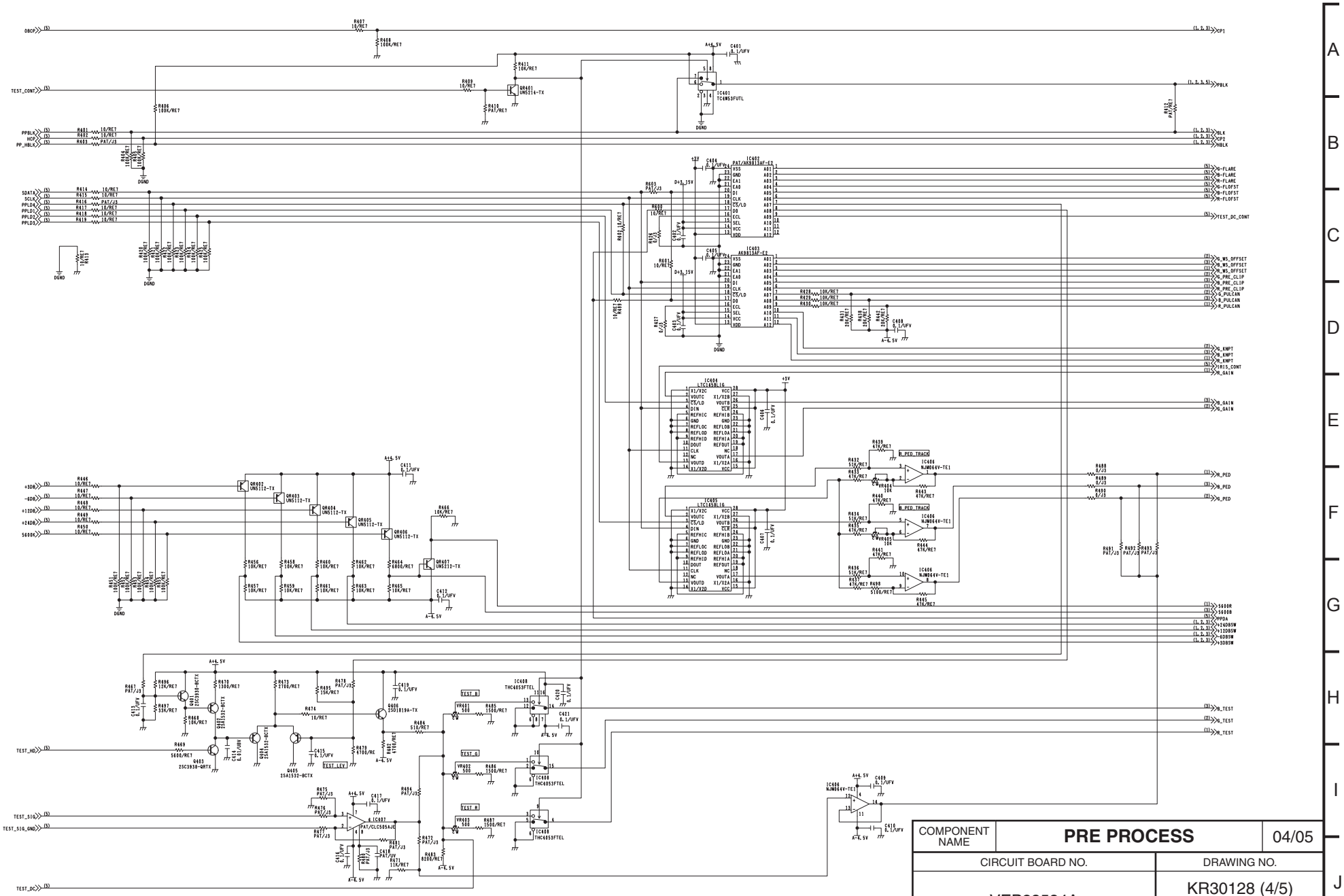
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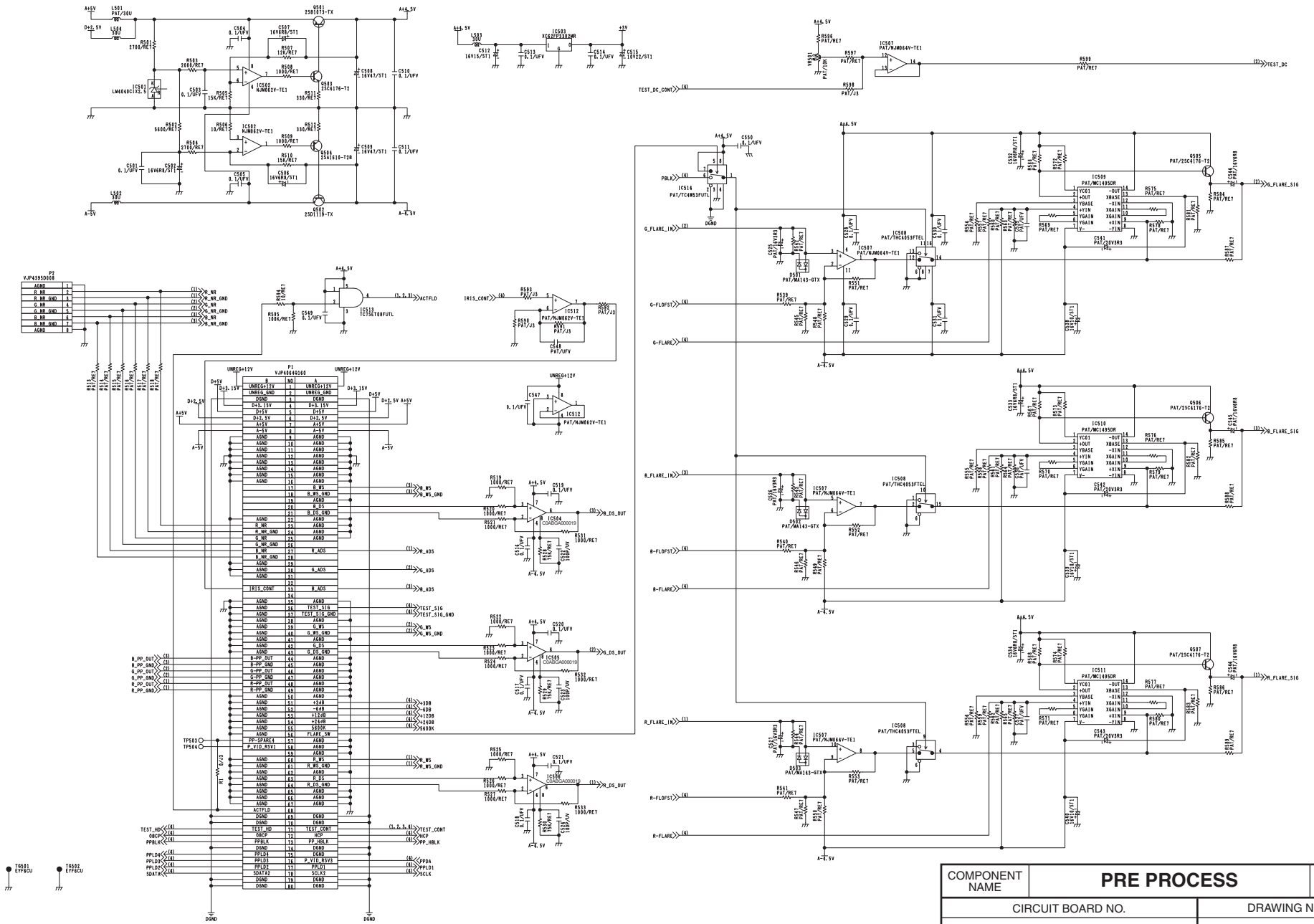
COMPONENT NAME	PRE PROCESS	02/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23534A		KR30128 (2/5)
		SCM020



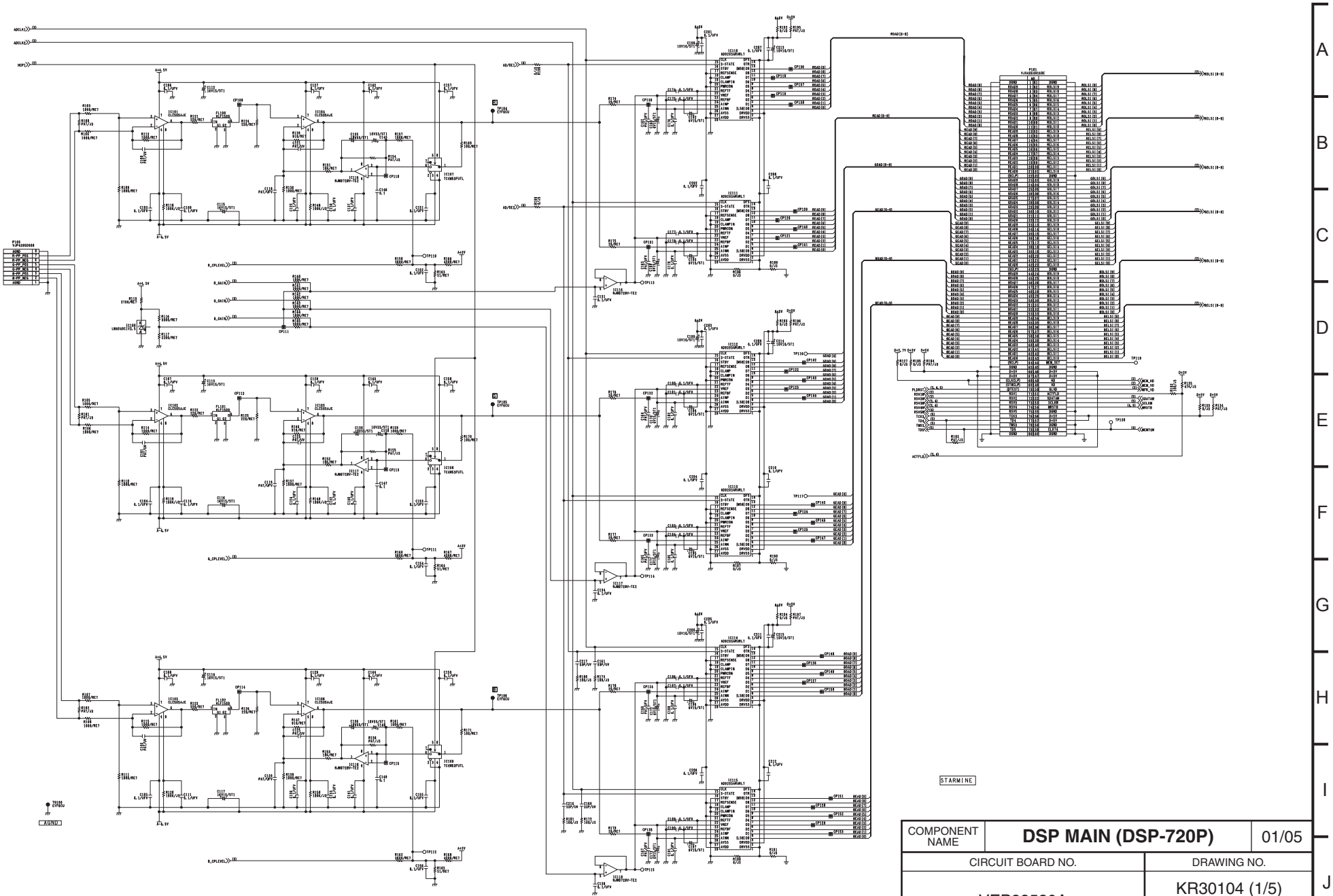
COMPONENT NAME	PRE PROCESS	03/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23534A		KR30128 (3/5)
		SCM021



COMPONENT NAME	**PRE PROCESS**	04/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23534A		KR30128 (4/5)
		SCM022

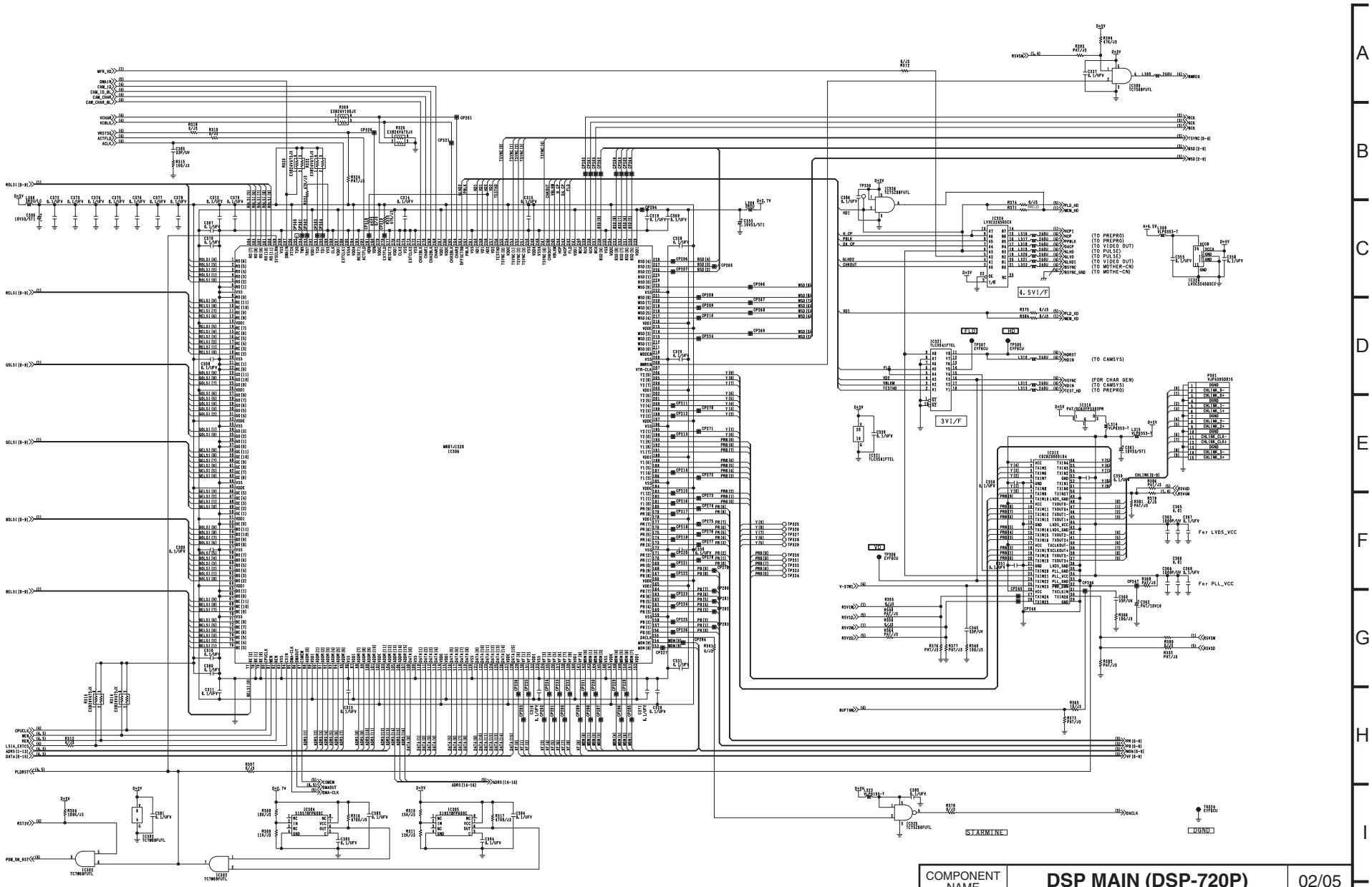


COMPONENT NAME	PRE PROCESS	05/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23534A		KR30128 (5/5)
		SCM023

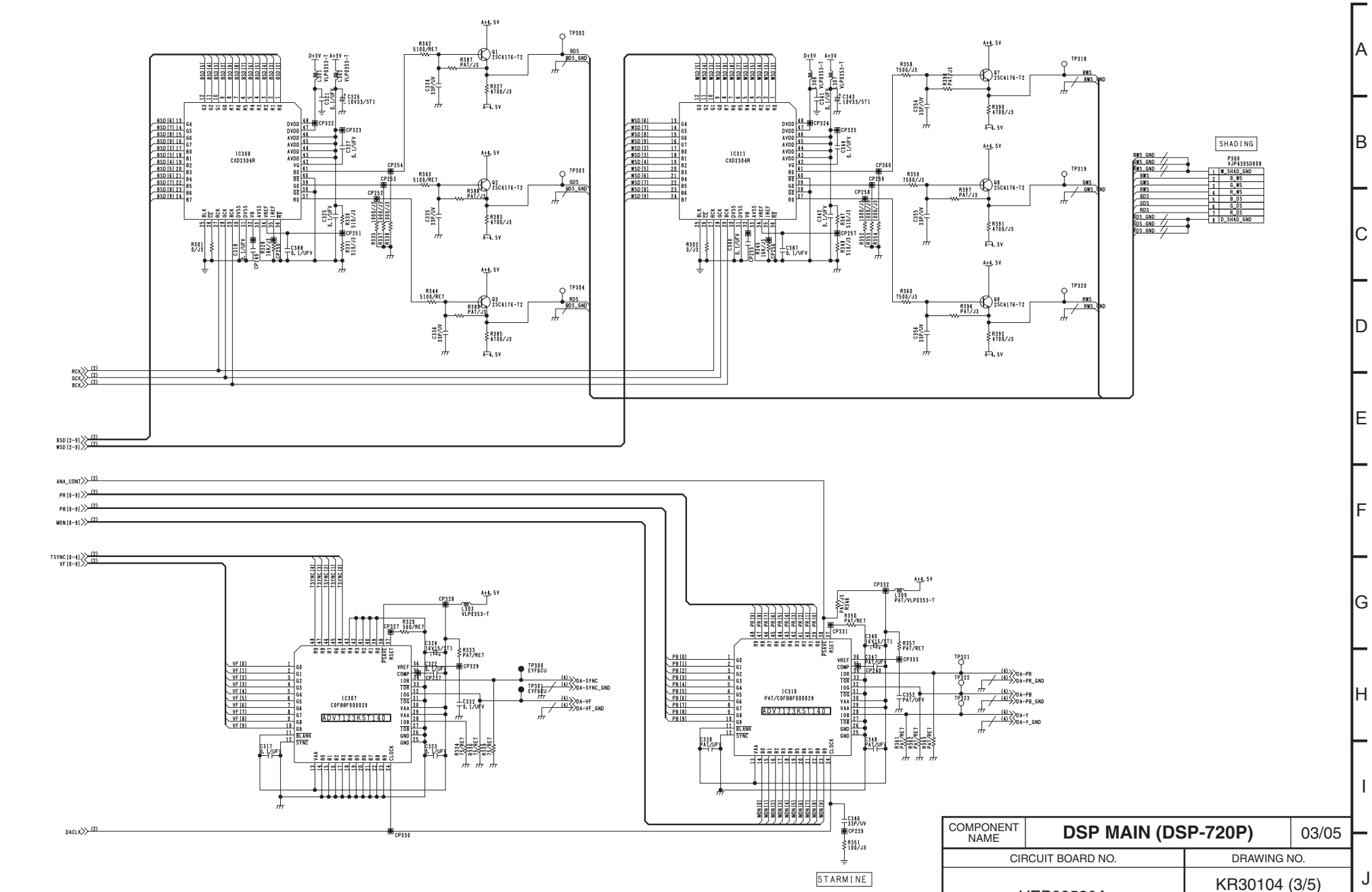


STARMINE

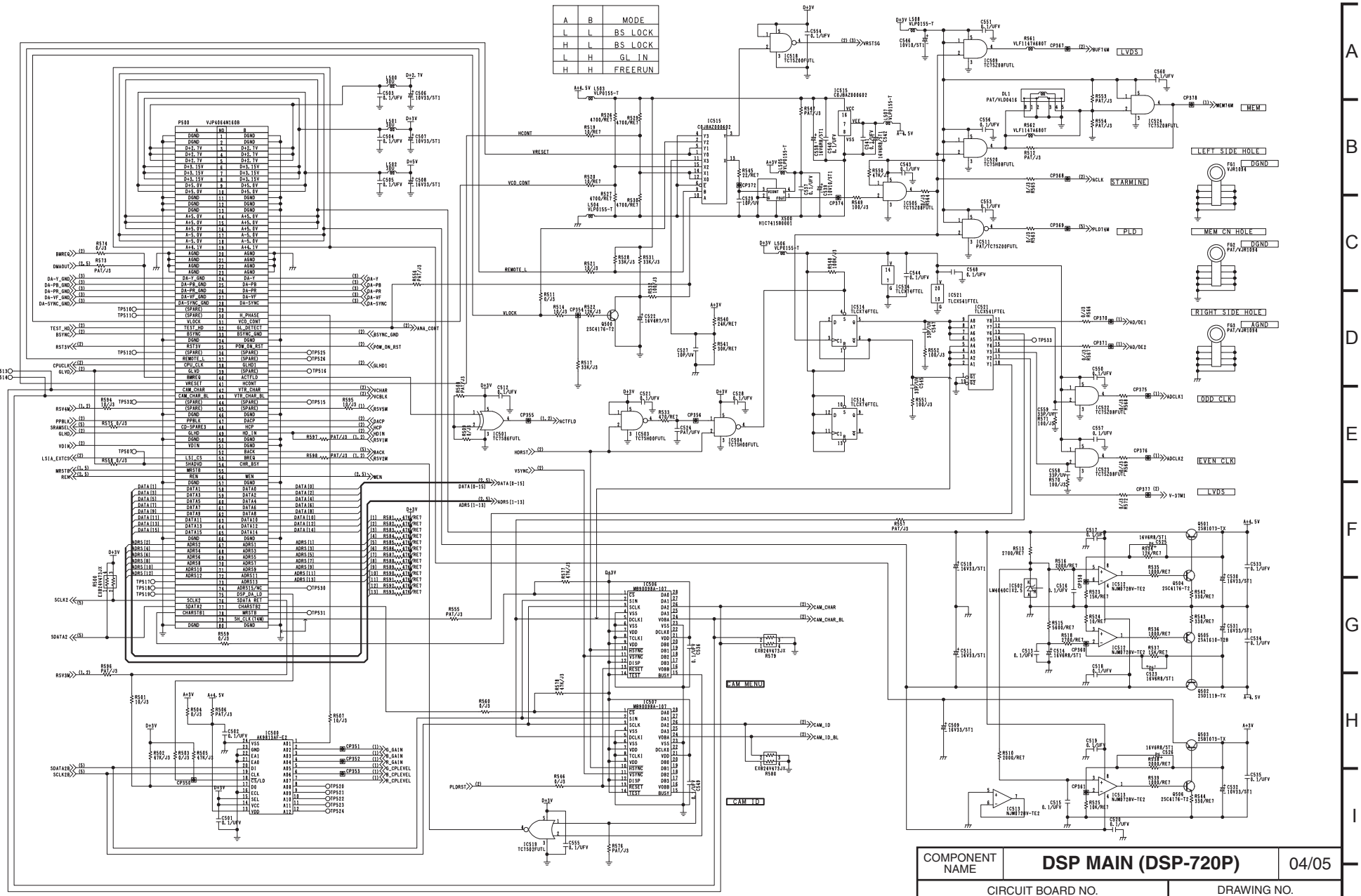
COMPONENT NAME	DSP MAIN (DSP-720P)	01/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23530A		KR30104 (1/5)
		SCM024



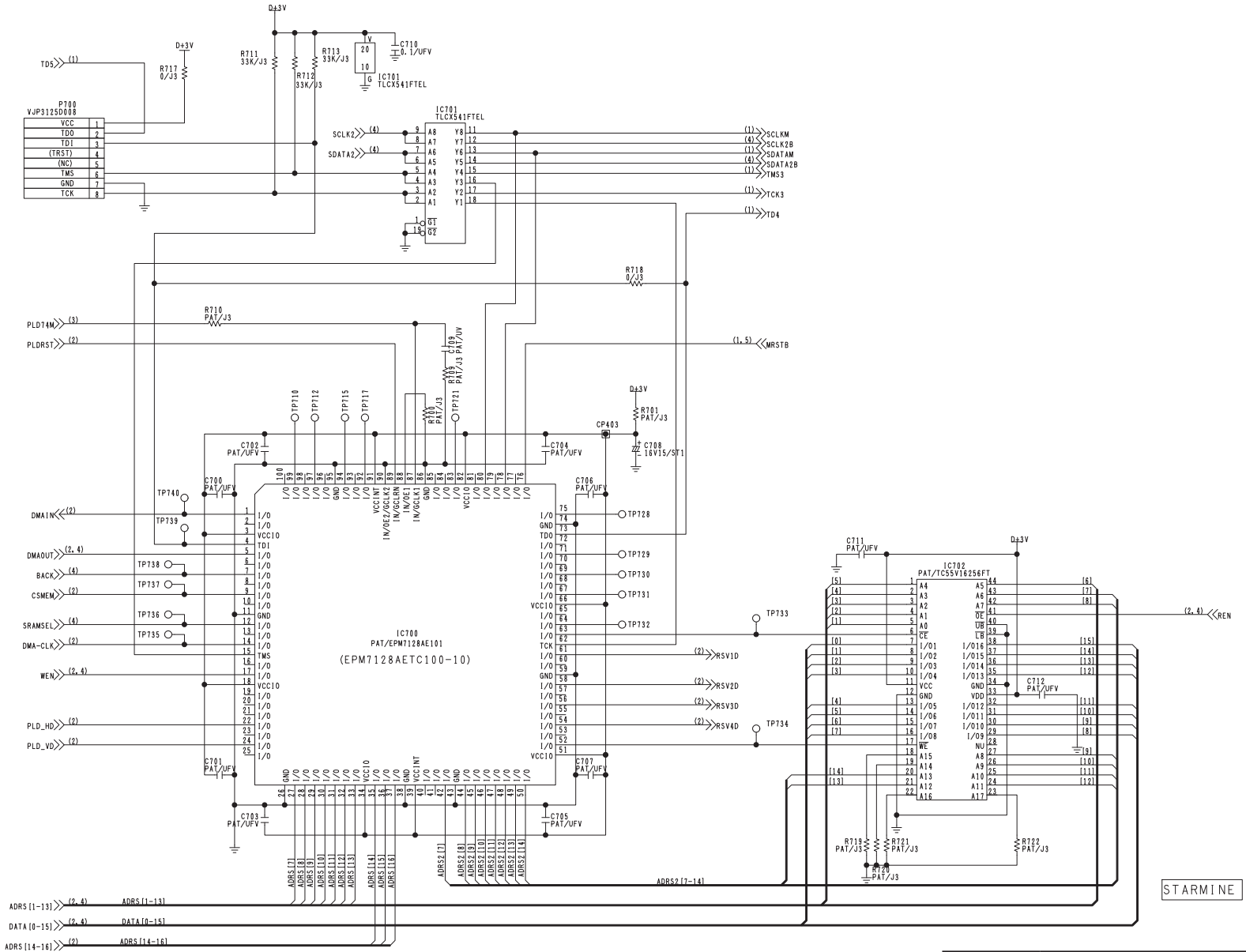
COMPONENT NAME	**DSP MAIN (DSP-720P)**	02/05
CIRCUIT BOARD NO.	DRAWING NO.	
VEP23530A	KR30104 (2/5)	
	SCM025	



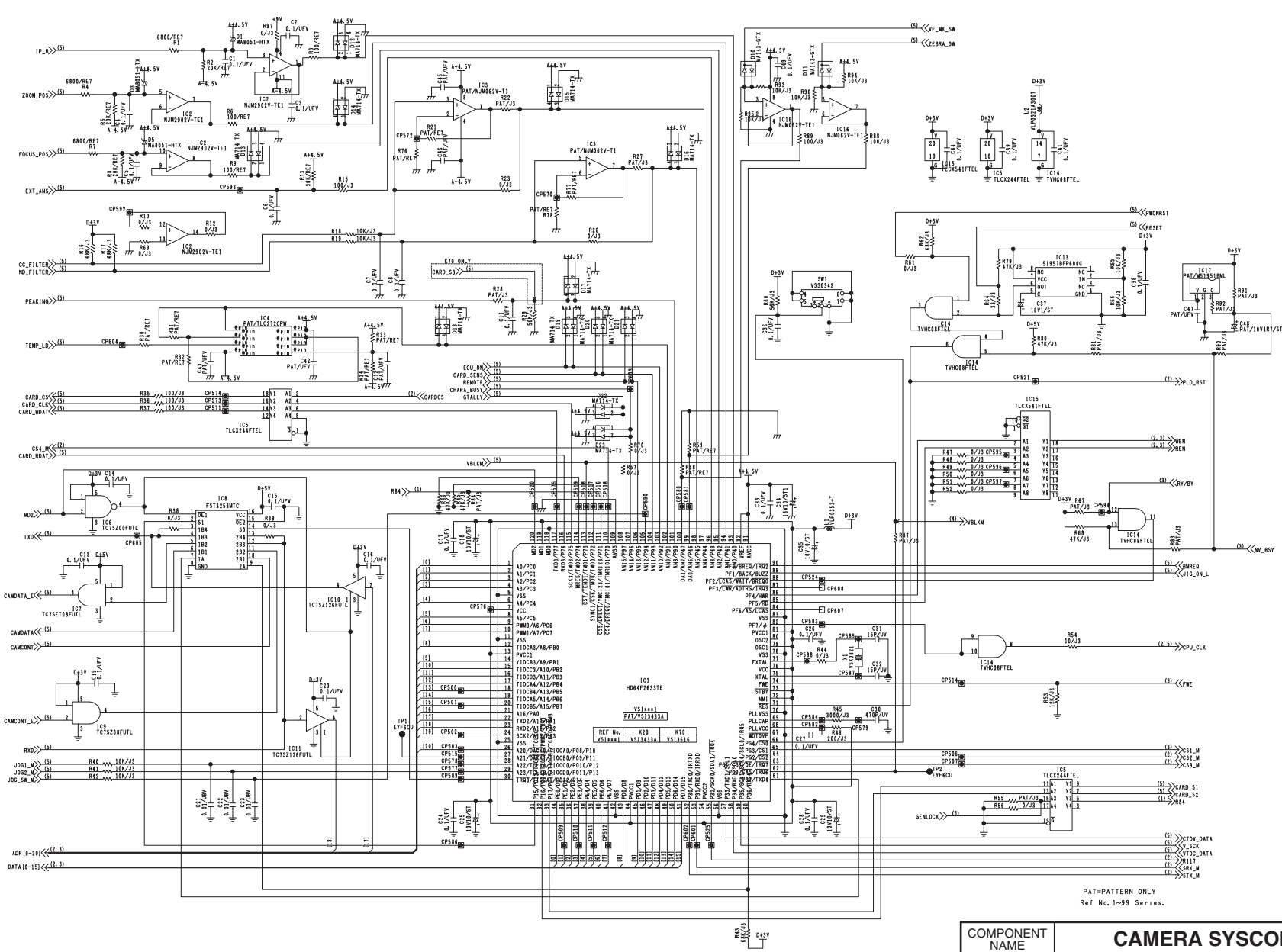
COMPONENT NAME	DSP MAIN (DSP-720P)	03/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23530A		KR30104 (3/5)
		SCM026



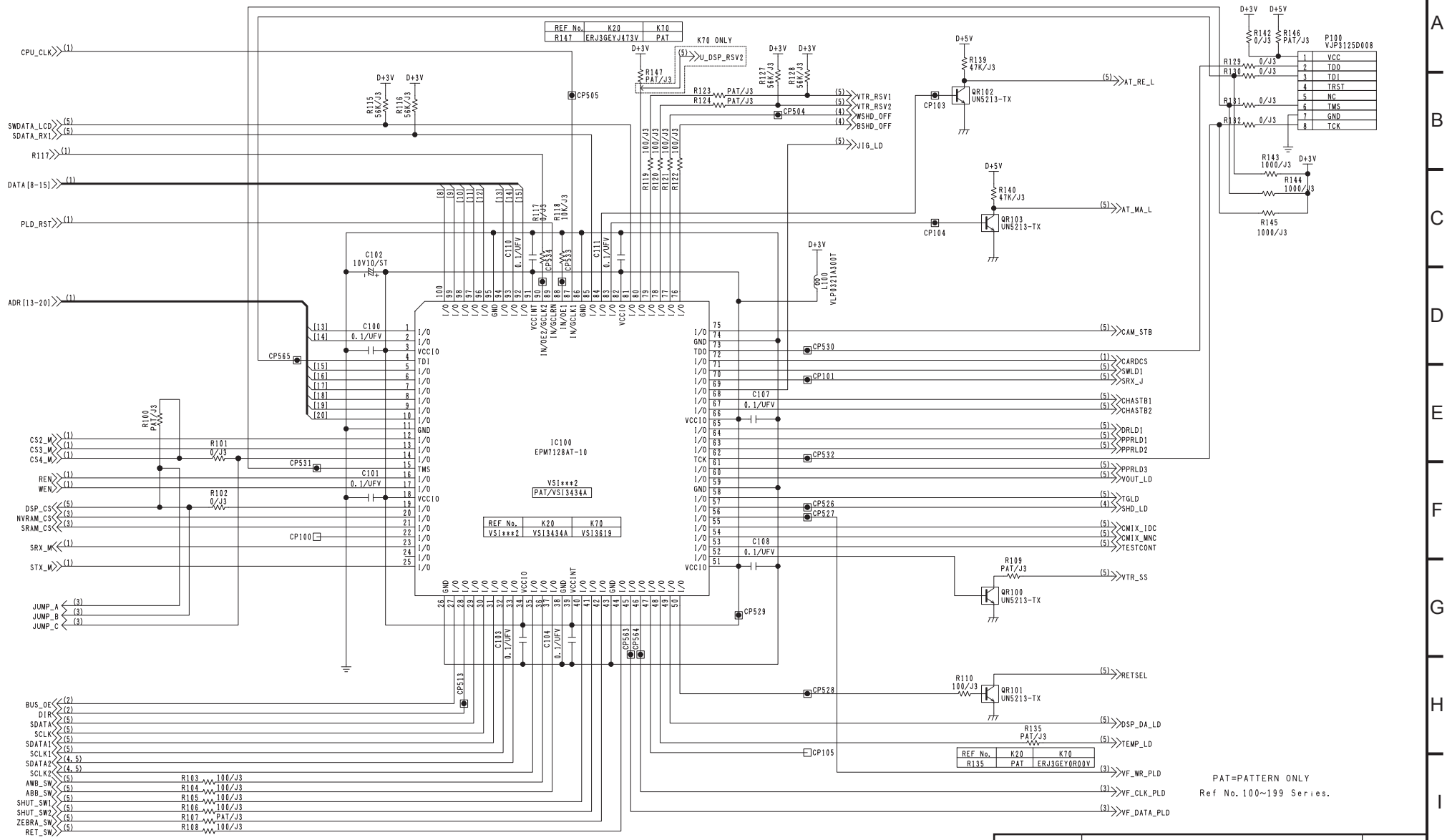
COMPONENT NAME	DSP MAIN (DSP-720P)	04/05
CIRCUIT BOARD NO.	DRAWING NO.	
VEP23530A	KR30104 (4/5)-1	
	SCM027	



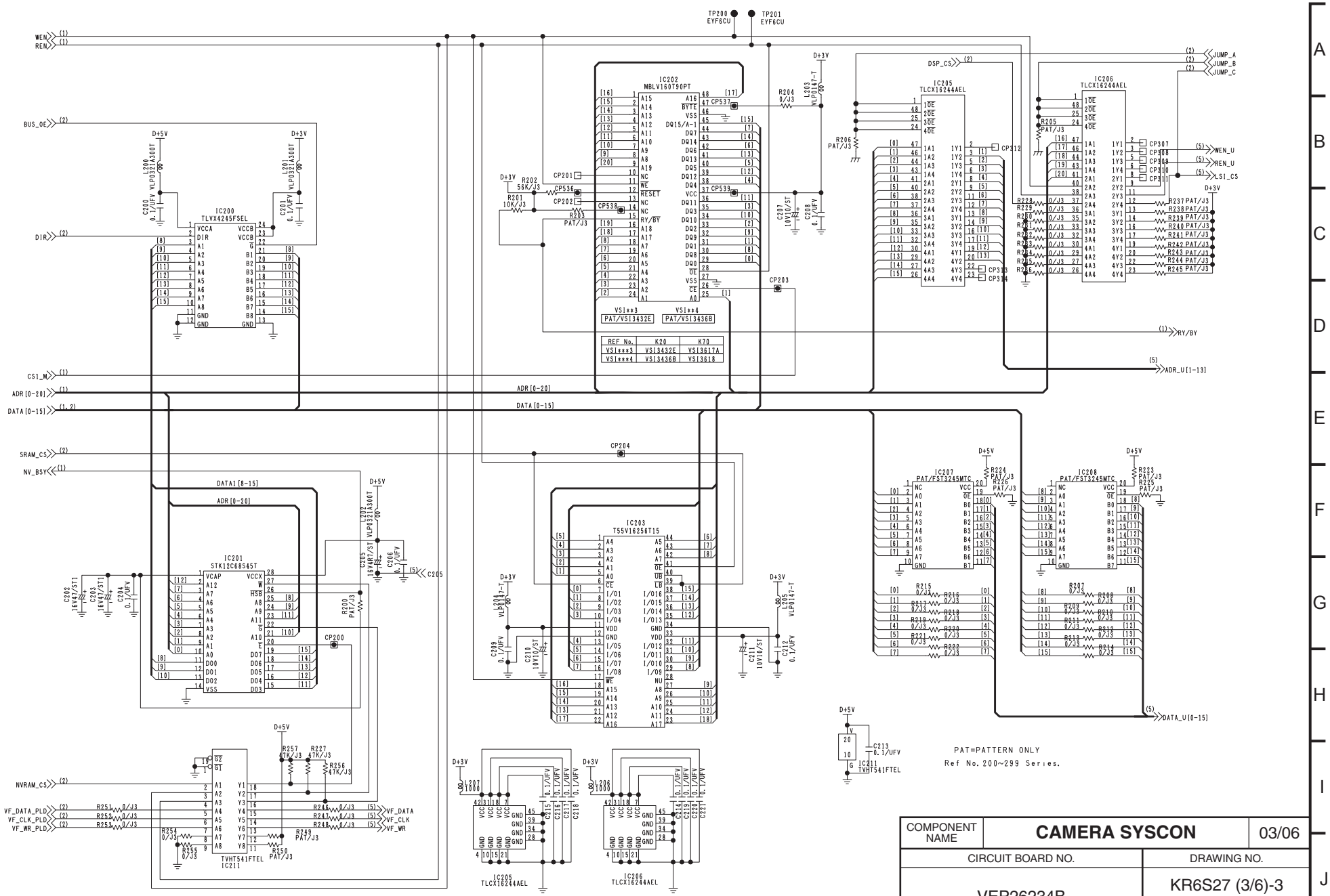
COMPONENT NAME	DSP MAIN (DSP-720P)	05/05
CIRCUIT BOARD NO.		DRAWING NO.
VEP23530A		KR30104 (5/5)
		SCM028



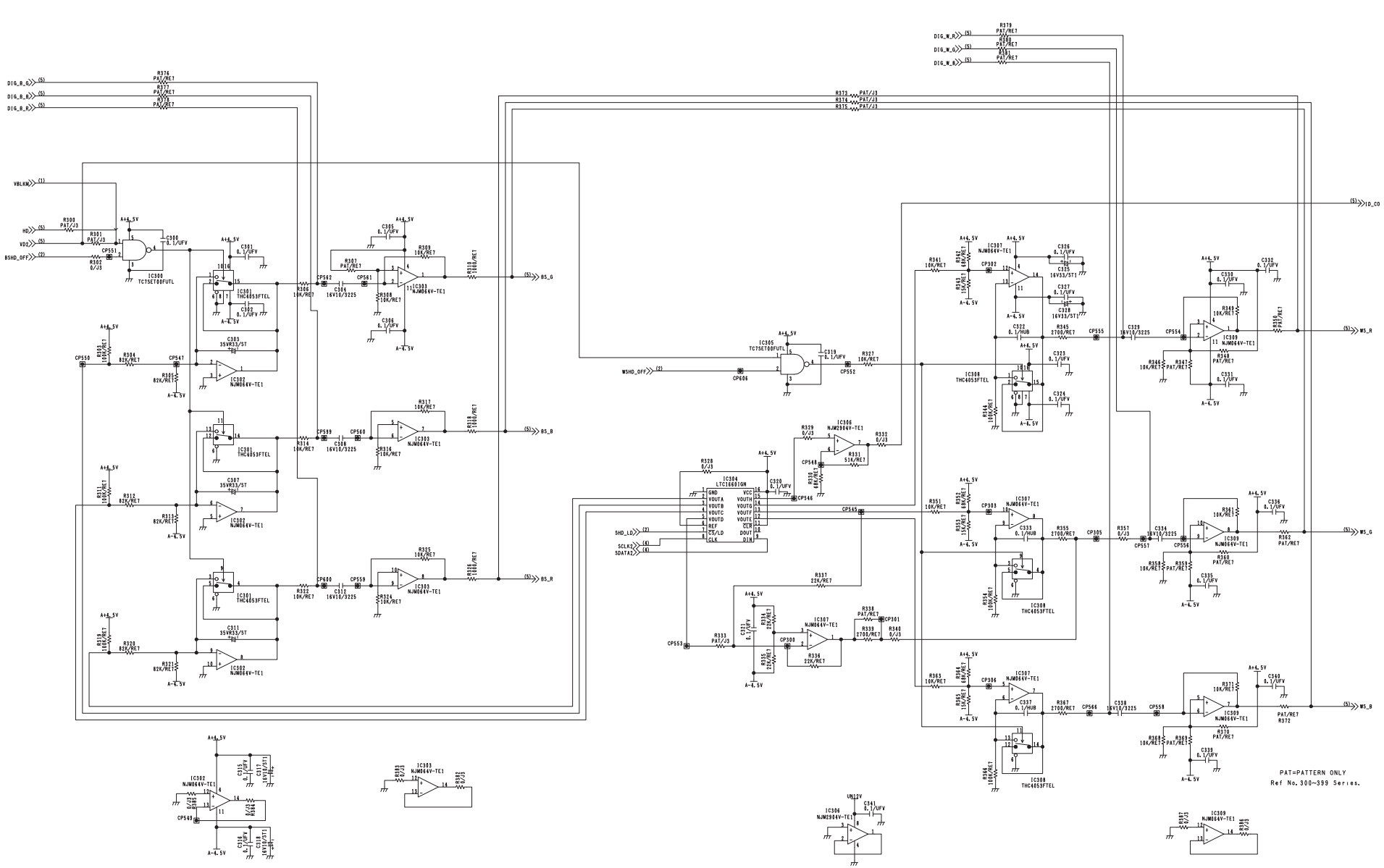
COMPONENT NAME	**CAMERA SYSCON**	01/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP26234B		KR6S27 (1/6)-1
		SCM029



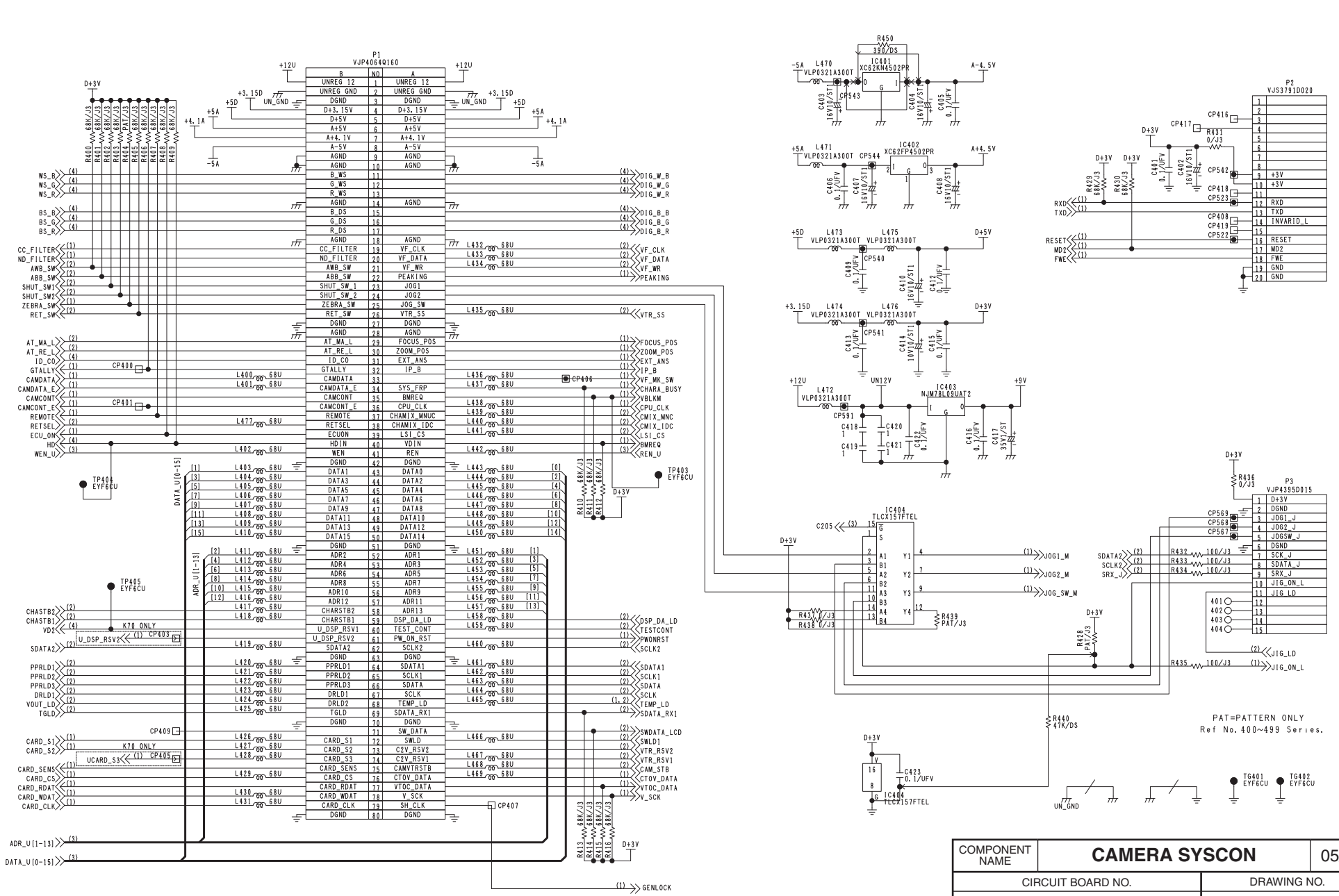
COMPONENT NAME	CAMERA SYSCON	02/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP26234B		KR6S27 (2/6)-1
		SCM030



COMPONENT NAME	**CAMERA SYSCON**	03/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP26234B		KR6S27 (3/6)-3
		SCM031



COMPONENT NAME	CAMERA SYSCON	04/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP26234B		KR6S27 (4/6)-1
		SCM032


P1
VJP40640160
P2
VJS3791D020
P3
VJP4395D015
IC401
XC62KN4502PR
IC402
XC62PP4502PR
IC403
NJM78L09UAT2
IC404
TLCX157FTEL
L470
VLP0321A300T
L471
VLP0321A300T
L472
VLP0321A300T
L473
VLP0321A300T
L474
VLP0321A300T
L475
VLP0321A300T
L476
VLP0321A300T
CP543
CP544
CP540
CP541
CP591
CP400
CP401
CP403
CP405
CP406
CP407
CP409
TP403
EYF6CU
TP404
EYF6CU
TP405
EYF6CU
TG401
EYF6CU
TG402
EYF6CU
PAT=PATTERN ONLY
Ref No. 400~499 Series.
COMPONENT NAME
CAMERA SYSCON
05/06
CIRCUIT BOARD NO.
VEP26234B
DRAWING NO.
KR6S27 (5/6)-1
SCM033

IC1

	AJ-HDC27AP
VSI***1	VSI3616

IC100

	AJ-HDC27AP
VSI***2	VSI3619

IC202

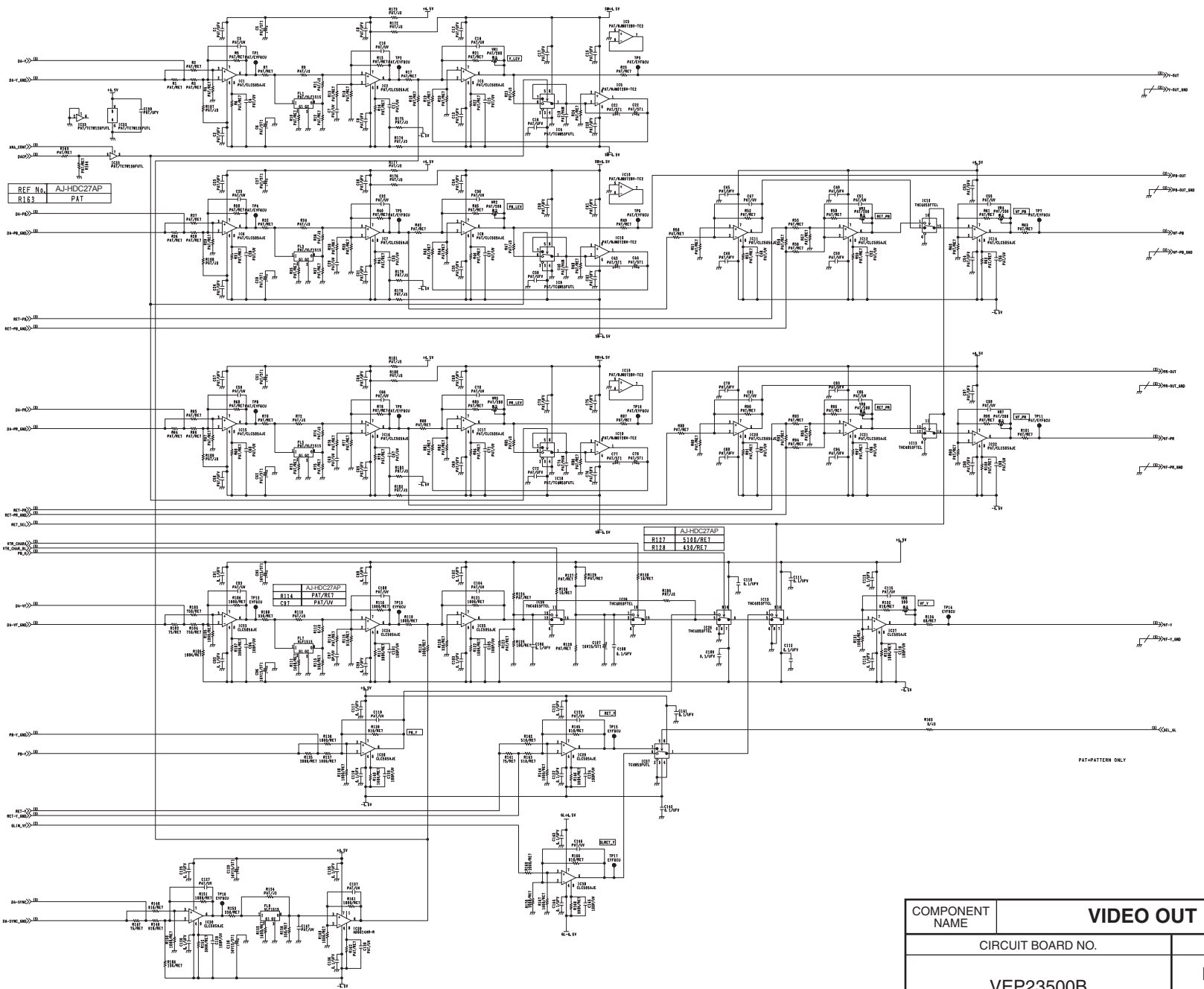
	AJ-HDC27AP
VSI***3	VSI3617A

	AJ-HDC27AP
VSI***4	VSI3618

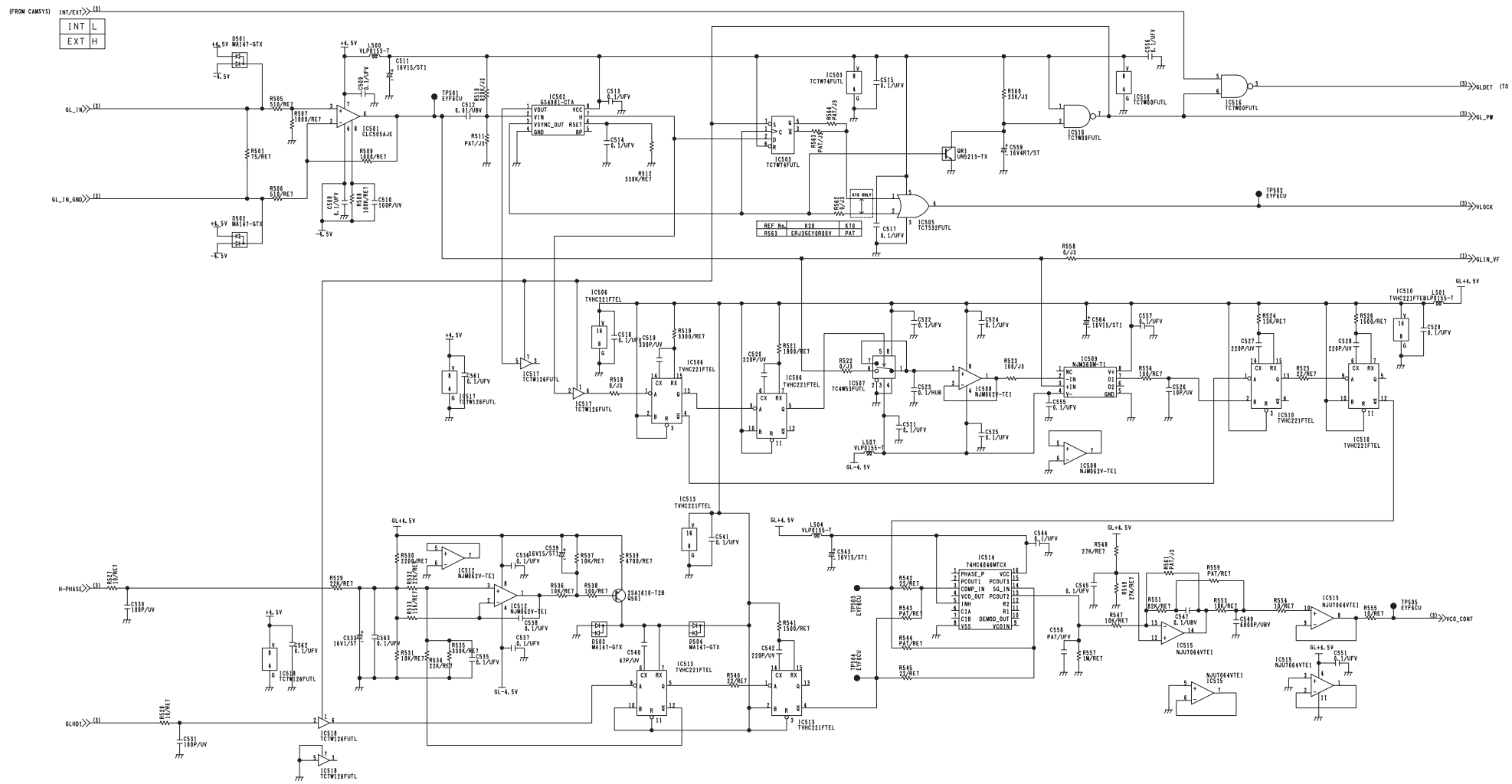
COMPONENT NAME	CAMERA SYSCON	06/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP26234B		KR6S27 (6/6)-2
		SCM034

A B C D E F G H I J

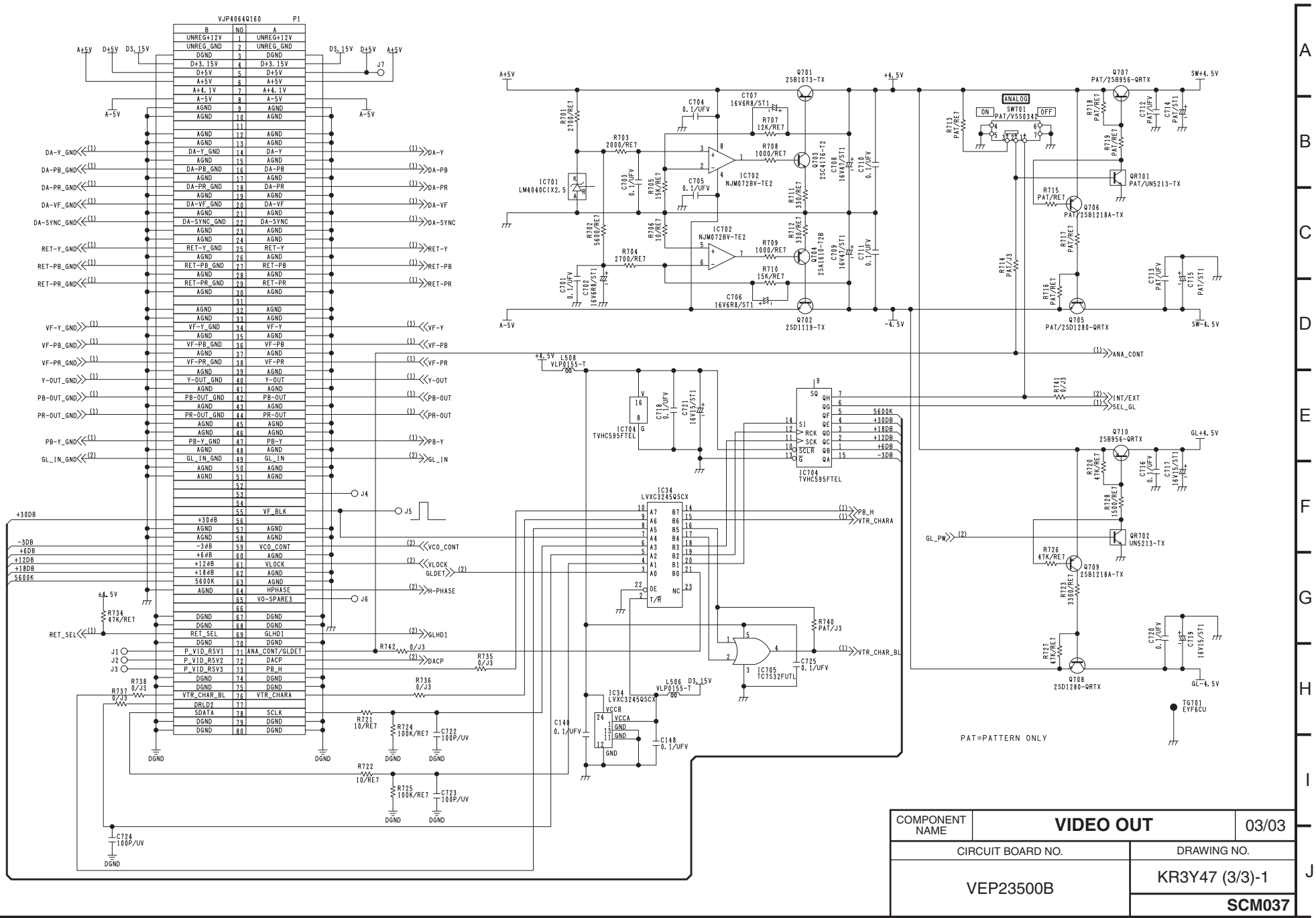
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



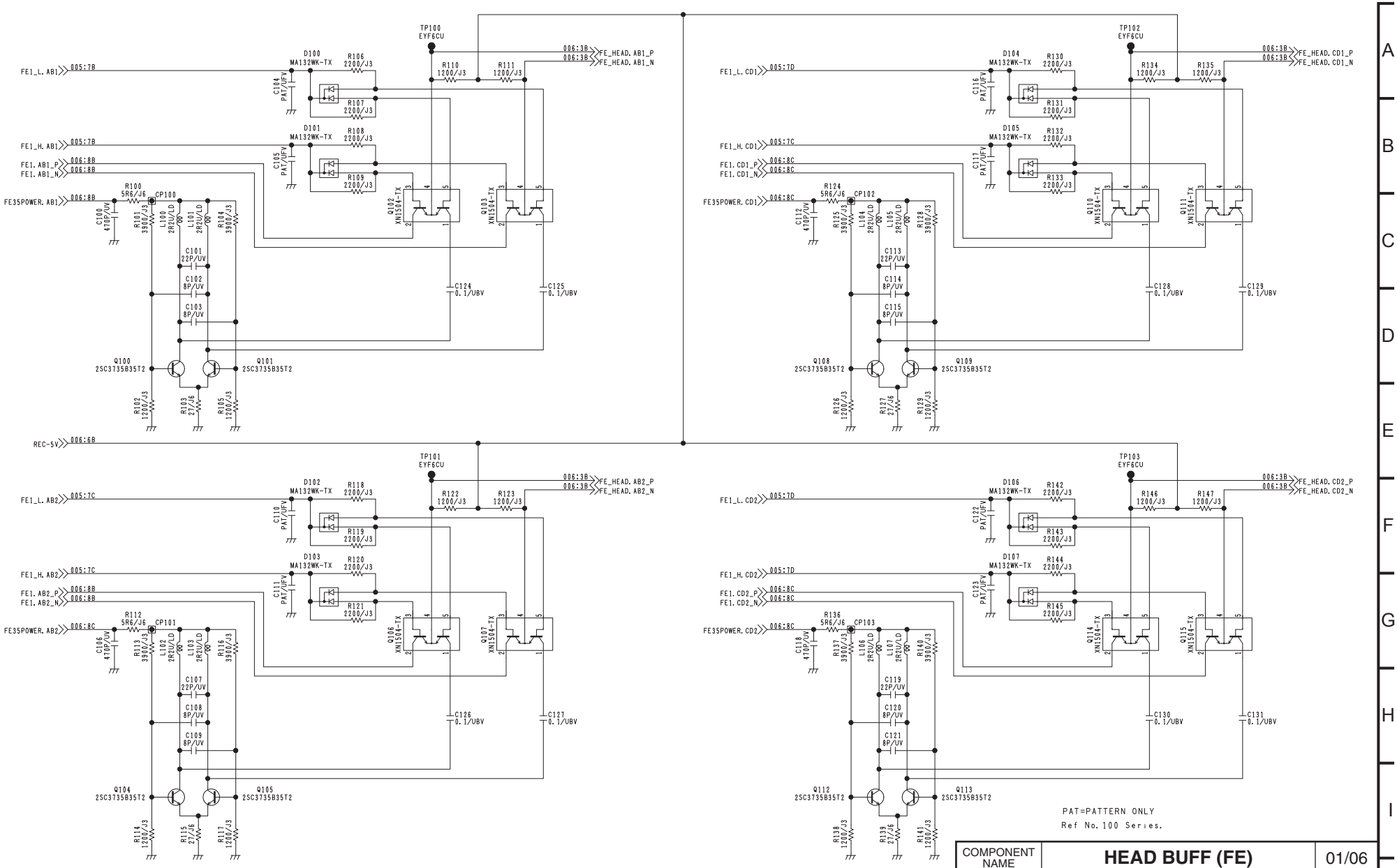
COMPONENT NAME	VIDEO OUT	01/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP23500B		KR3Y47 (1/3)-2
		SCM035



COMPONENT NAME	VIDEO OUT	02/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP23500B		KR3Y47 (2/3)-1
		SCM036



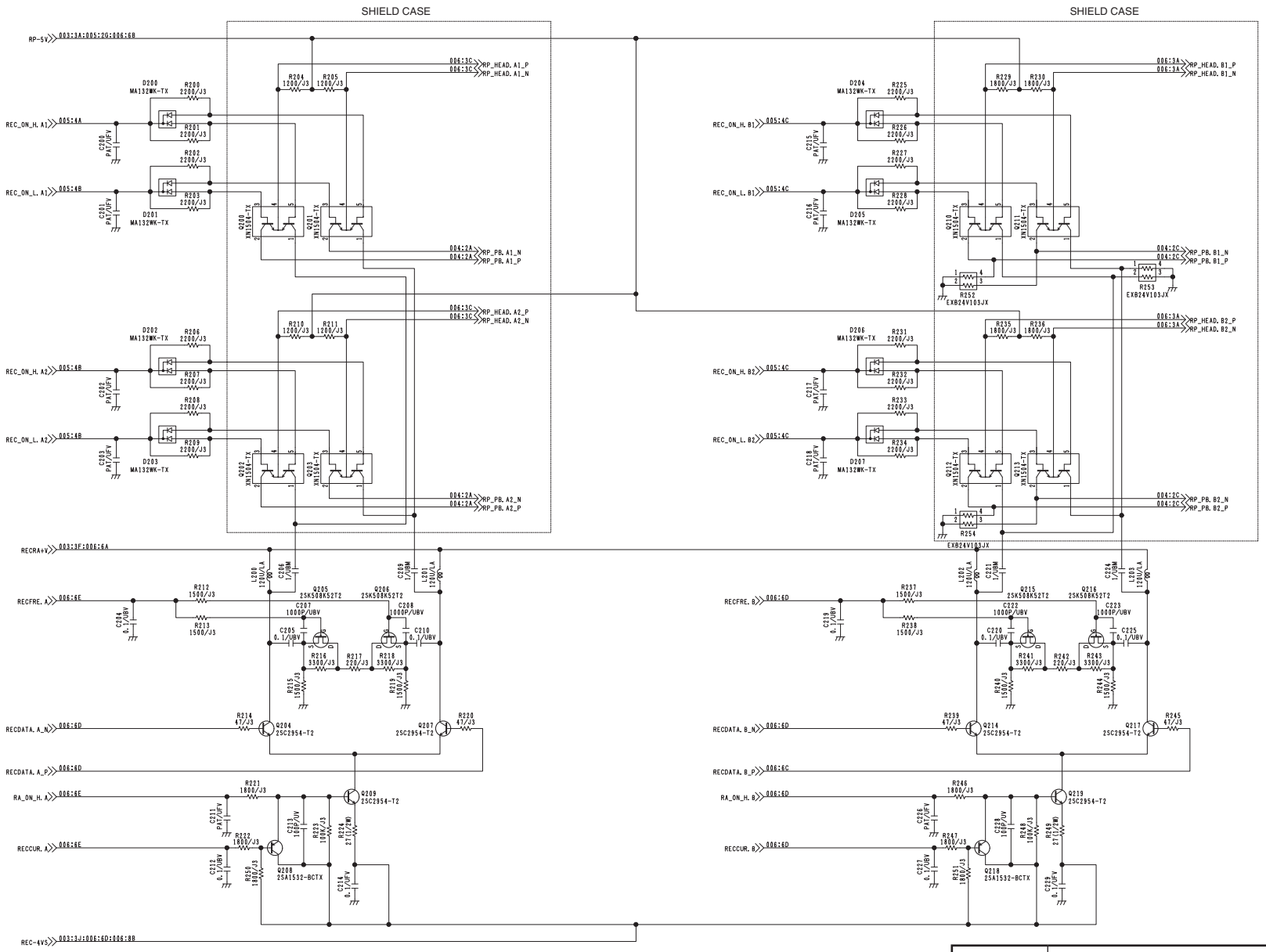
COMPONENT NAME	VIDEO OUT	03/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP23500B		KR3Y47 (3/3)-1
		SCM037



PAT=PATTERN ONLY

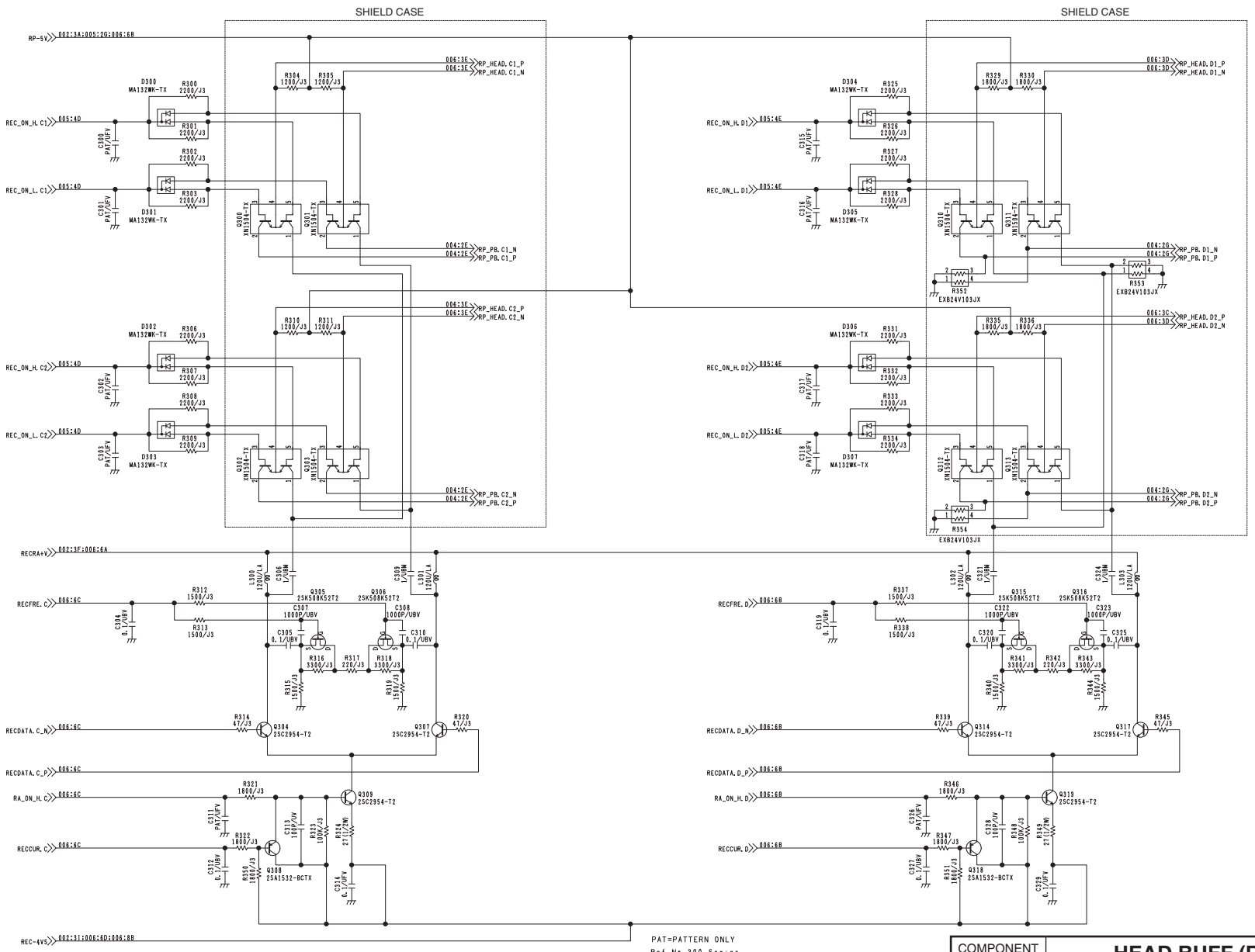
Ref No. 100 Series.

COMPONENT NAME	HEAD BUFF (FE)	01/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (1/6)
		SCM038

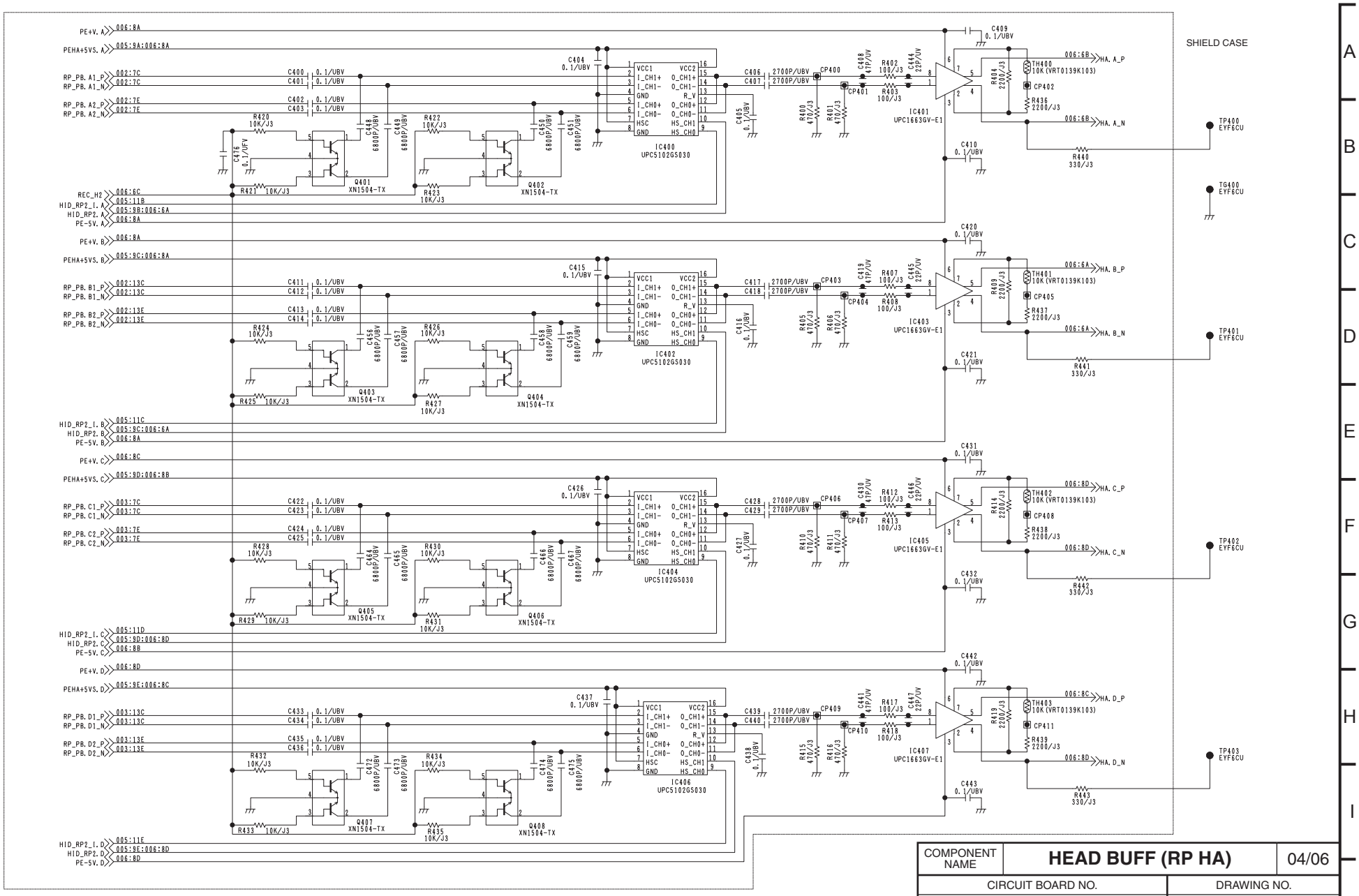


PAT=PATTERN ONLY
Ref No. 200 Series.

COMPONENT NAME	HEAD BUFF (RA)	02/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (2/6)-3
		SCM039

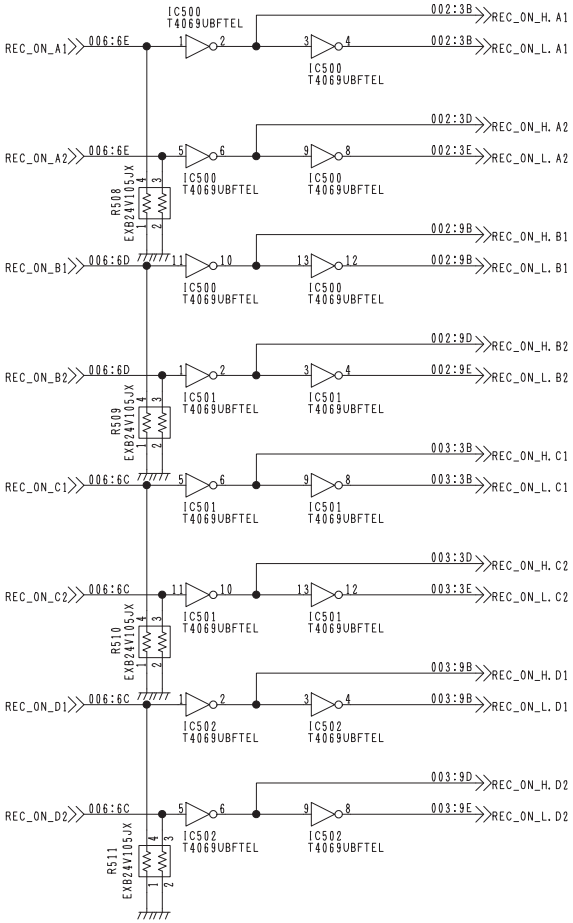


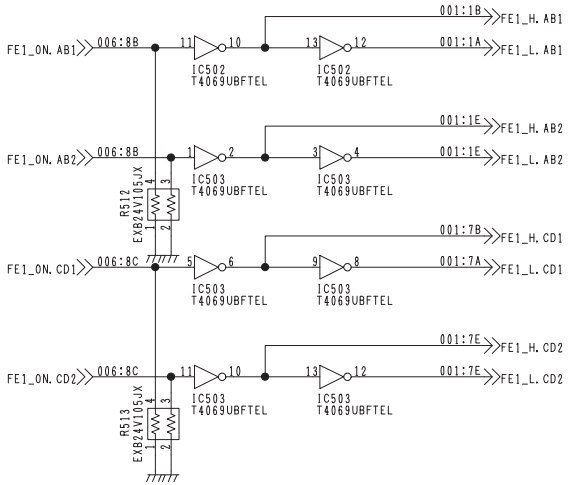
COMPONENT NAME	HEAD BUFF (RA)	03/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (3/6)-3
		SCM040

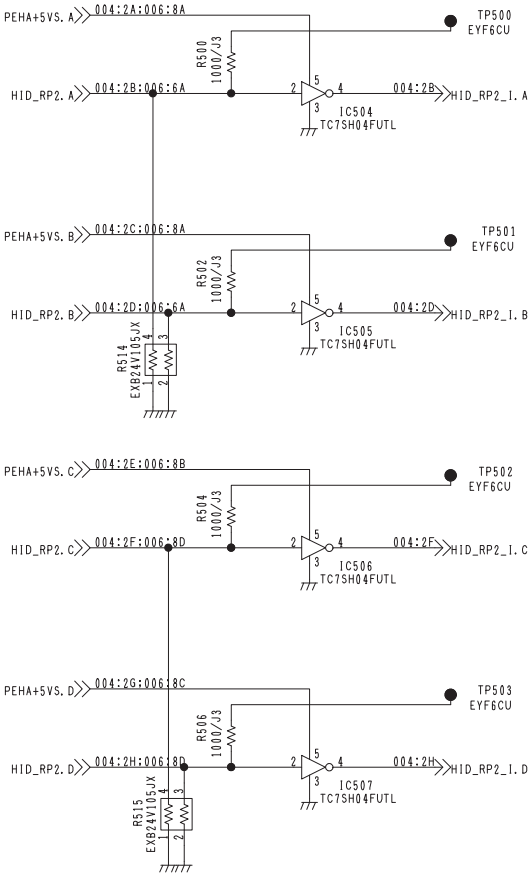


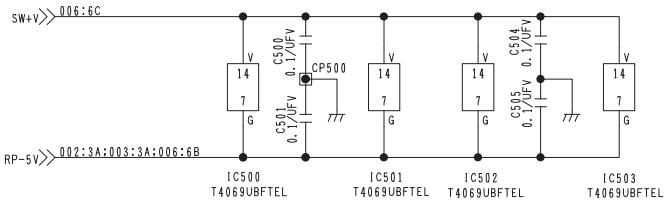
PAT=PATTERN ONLY
Ref No. 400 Series.

COMPONENT NAME	HEAD BUFF (RP HA)	04/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (4/6)
		SCM041







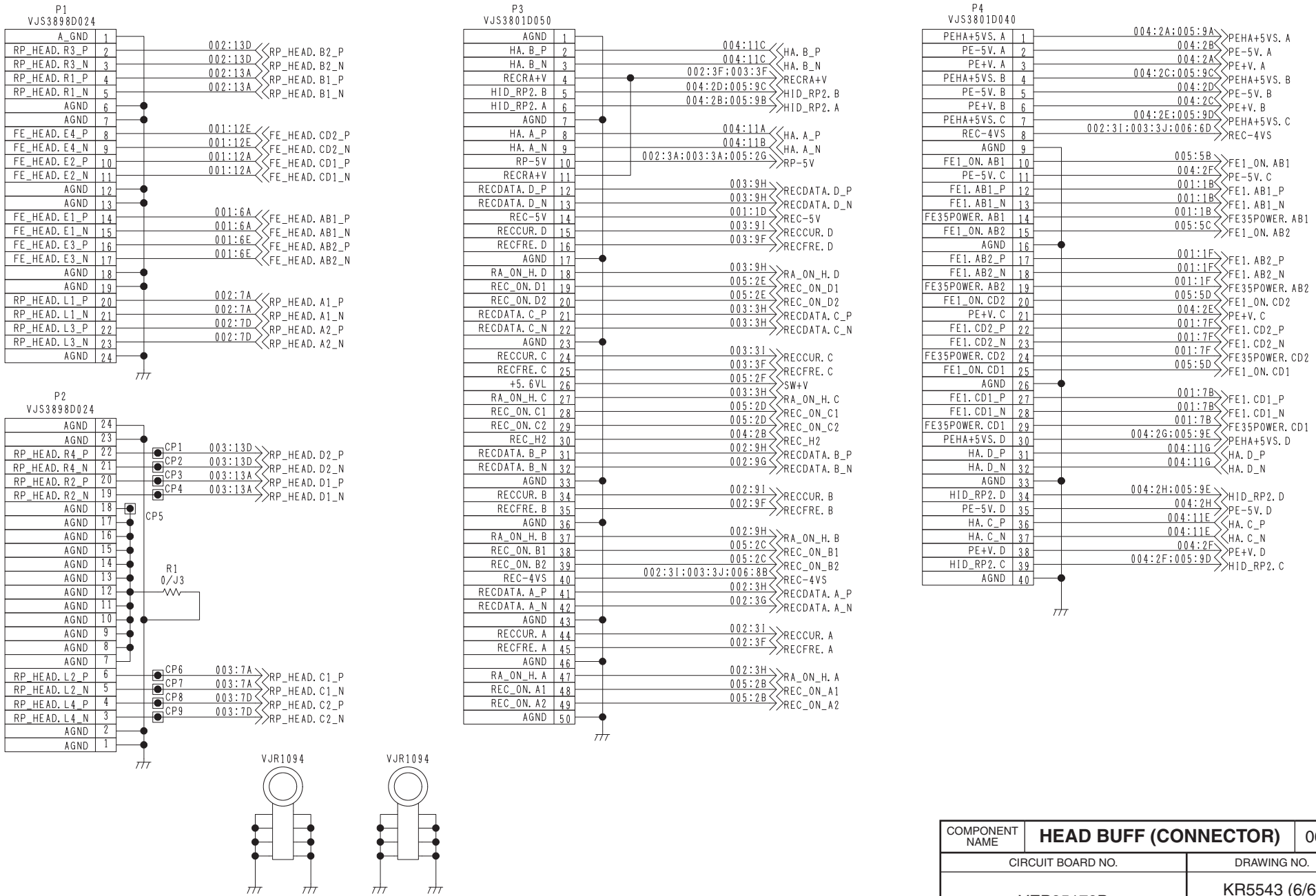


PAT=PATTERN ONLY
Ref No. 500 Series.

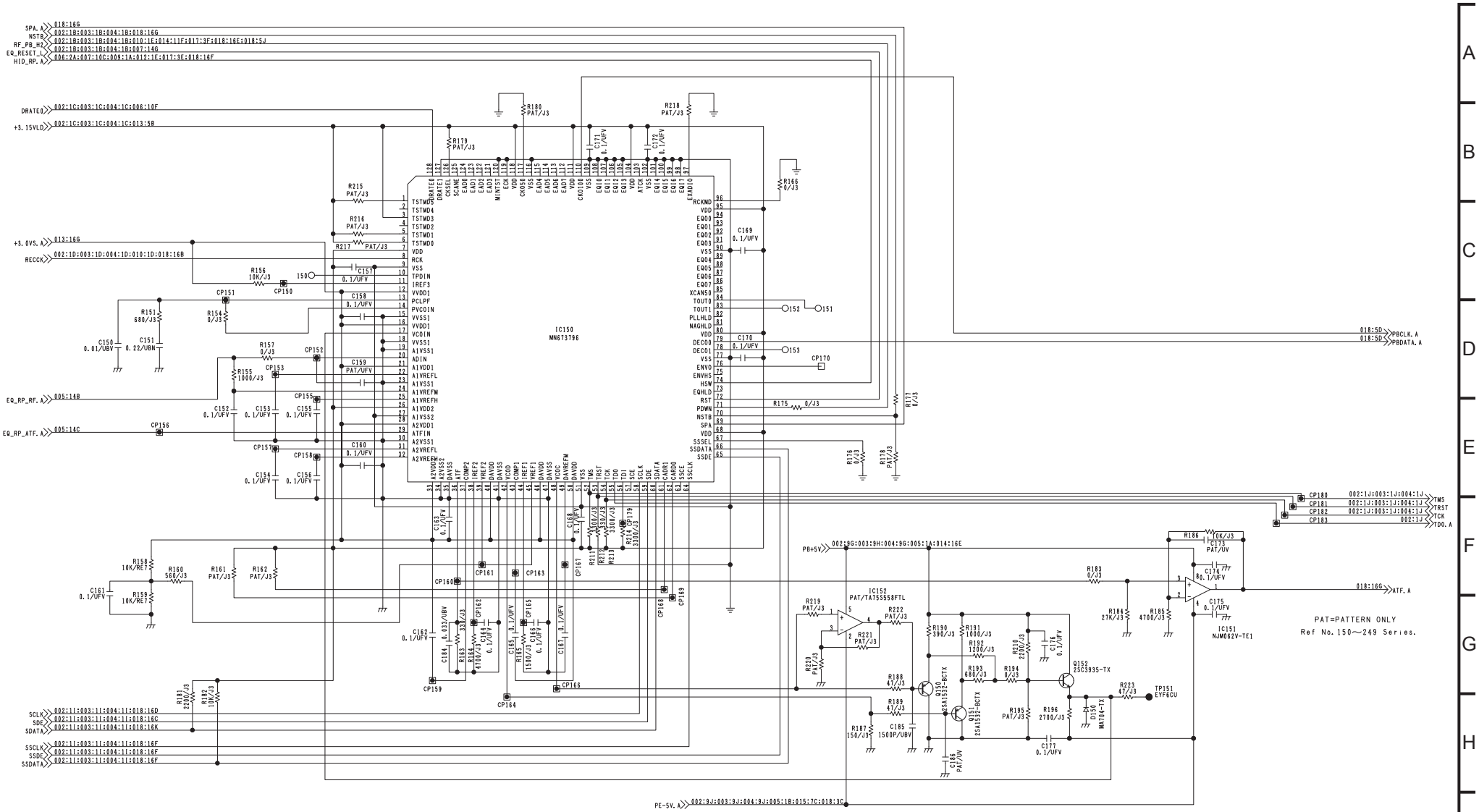
COMPONENT NAME	HEAD BUFF (LOGIC)	05/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (5/6)
		SCM042

A B C D E F G H I J

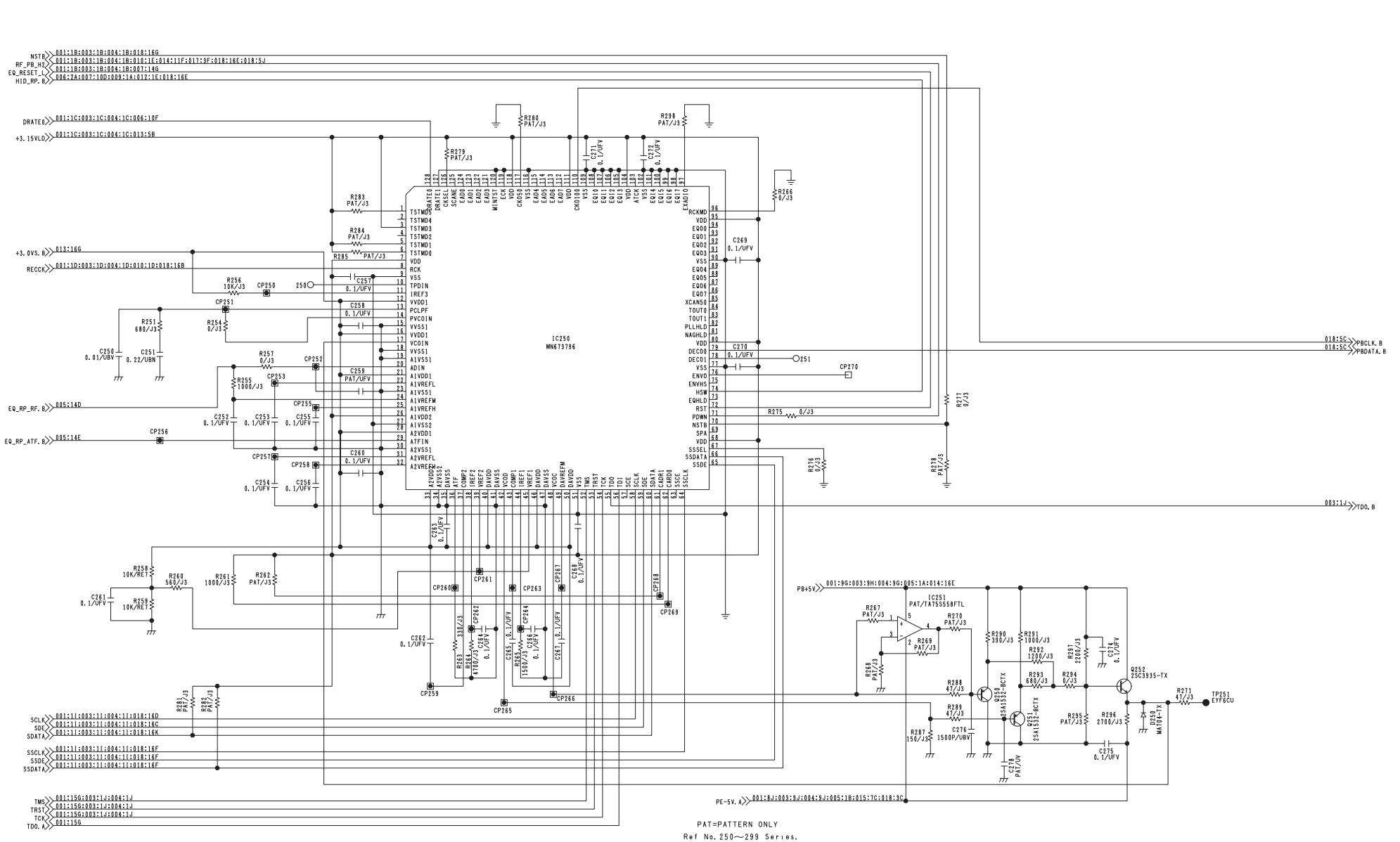
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



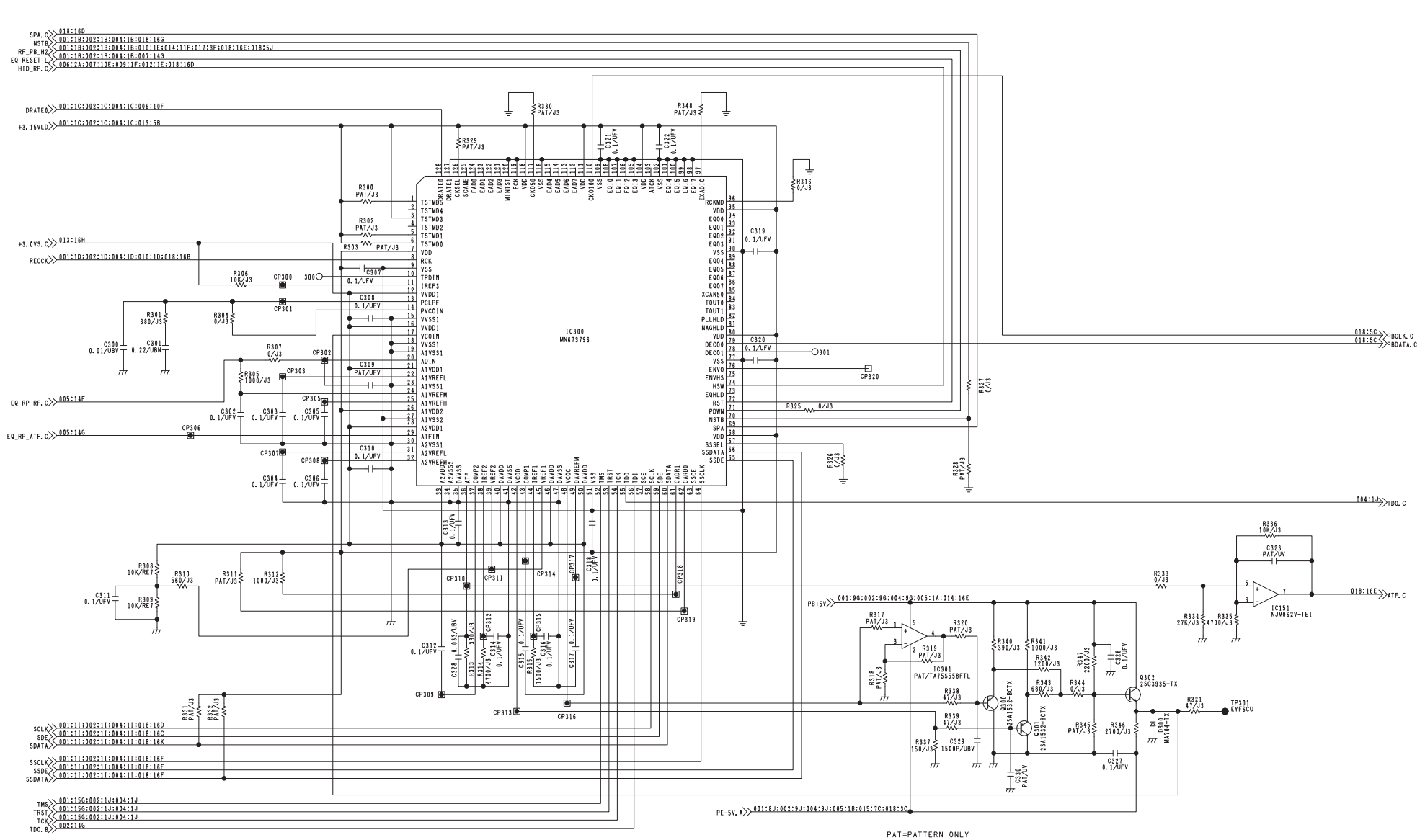
COMPONENT NAME	HEAD BUFF (CONNECTOR)	06/06
CIRCUIT BOARD NO.		DRAWING NO.
VEP85179B		KR5543 (6/6)
		SCM043



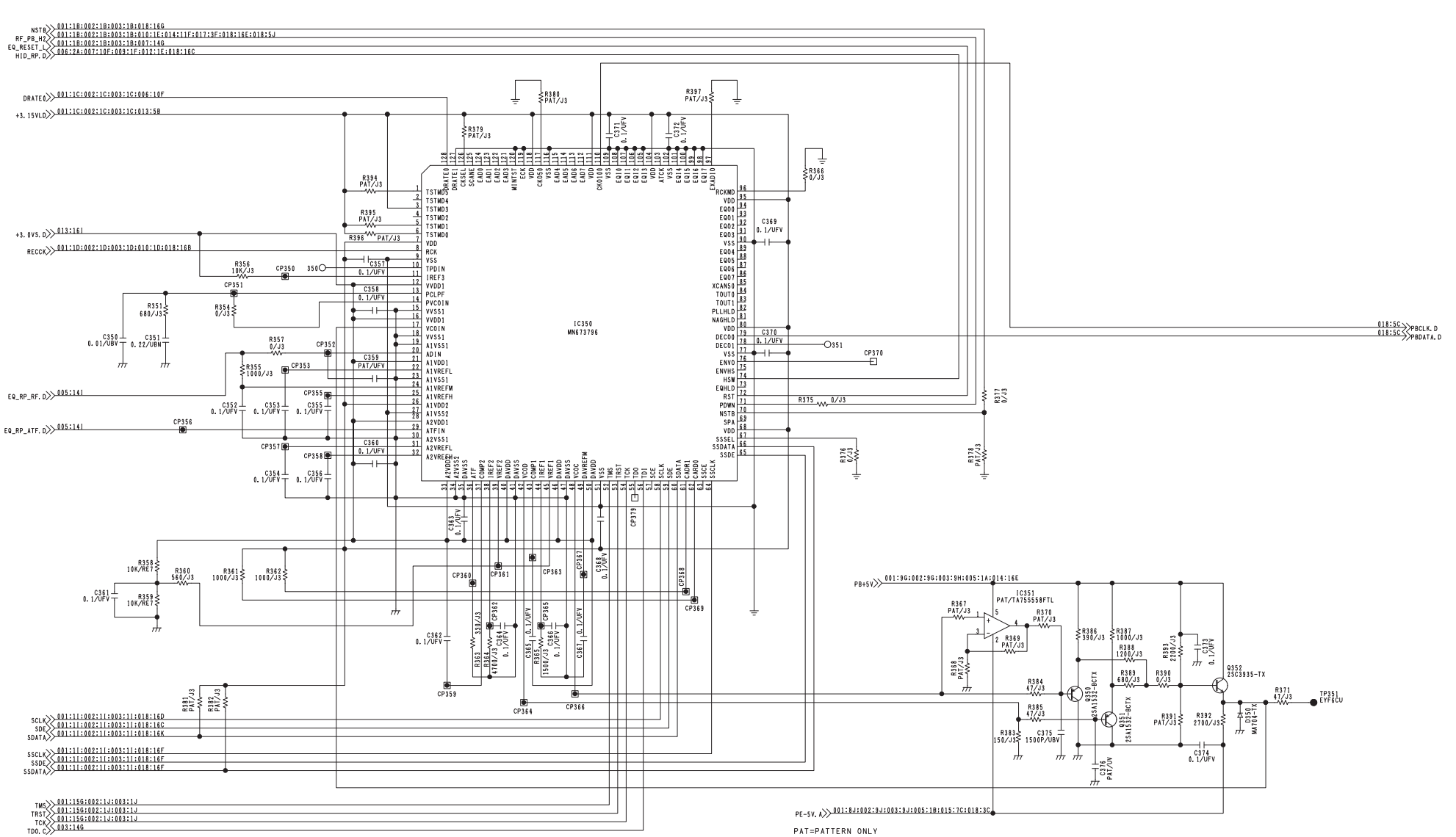
COMPONENT NAME	RF EQ (EQ Ach)	01/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (1/18)-1
		SCM044



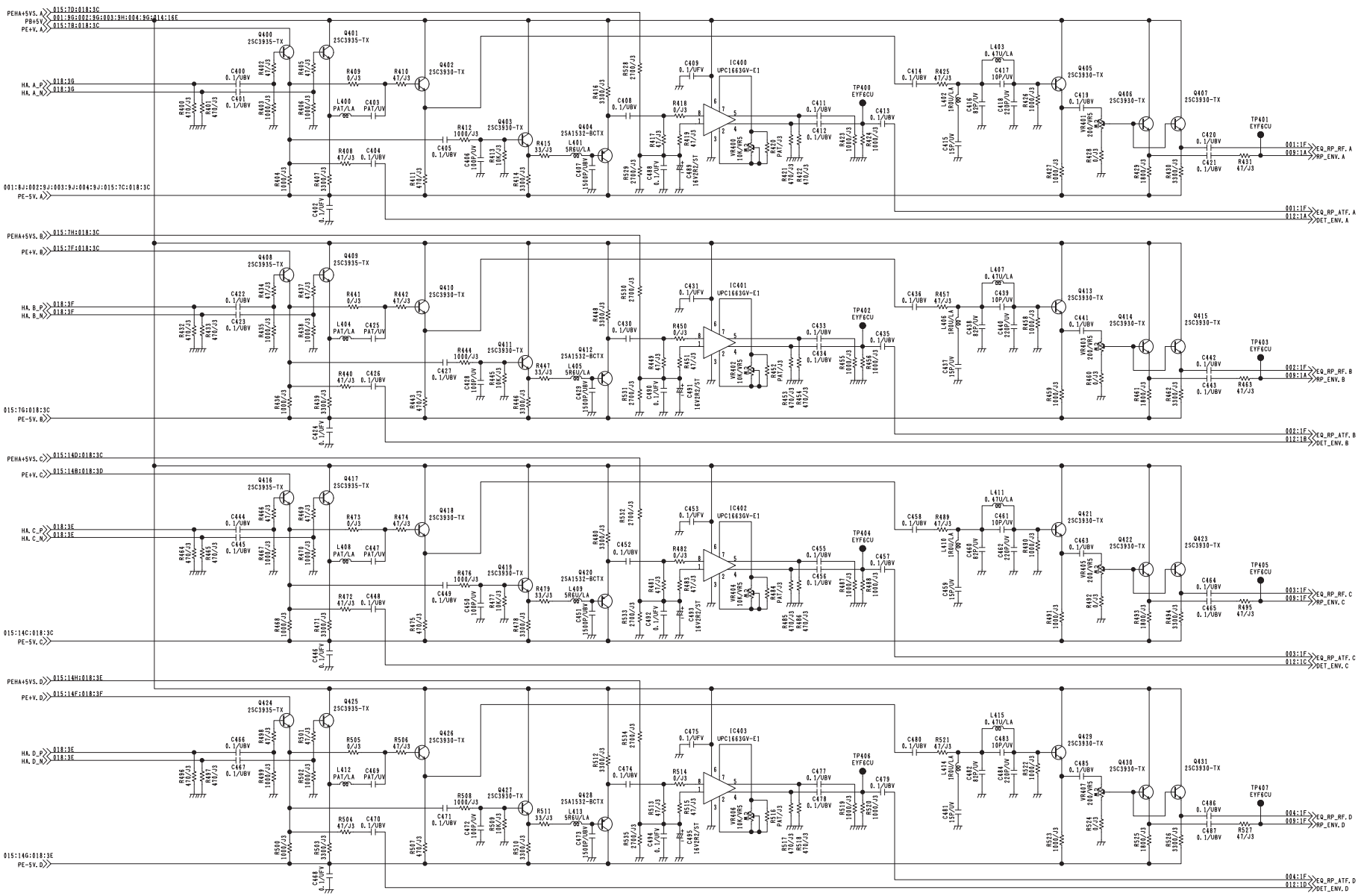
COMPONENT NAME	RF EQ (EQ Bch)	02/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (2/18)-1
		SCM045



COMPONENT NAME	**RF EQ (EQ Cch)**	03/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (3/18)-1
		SCM046

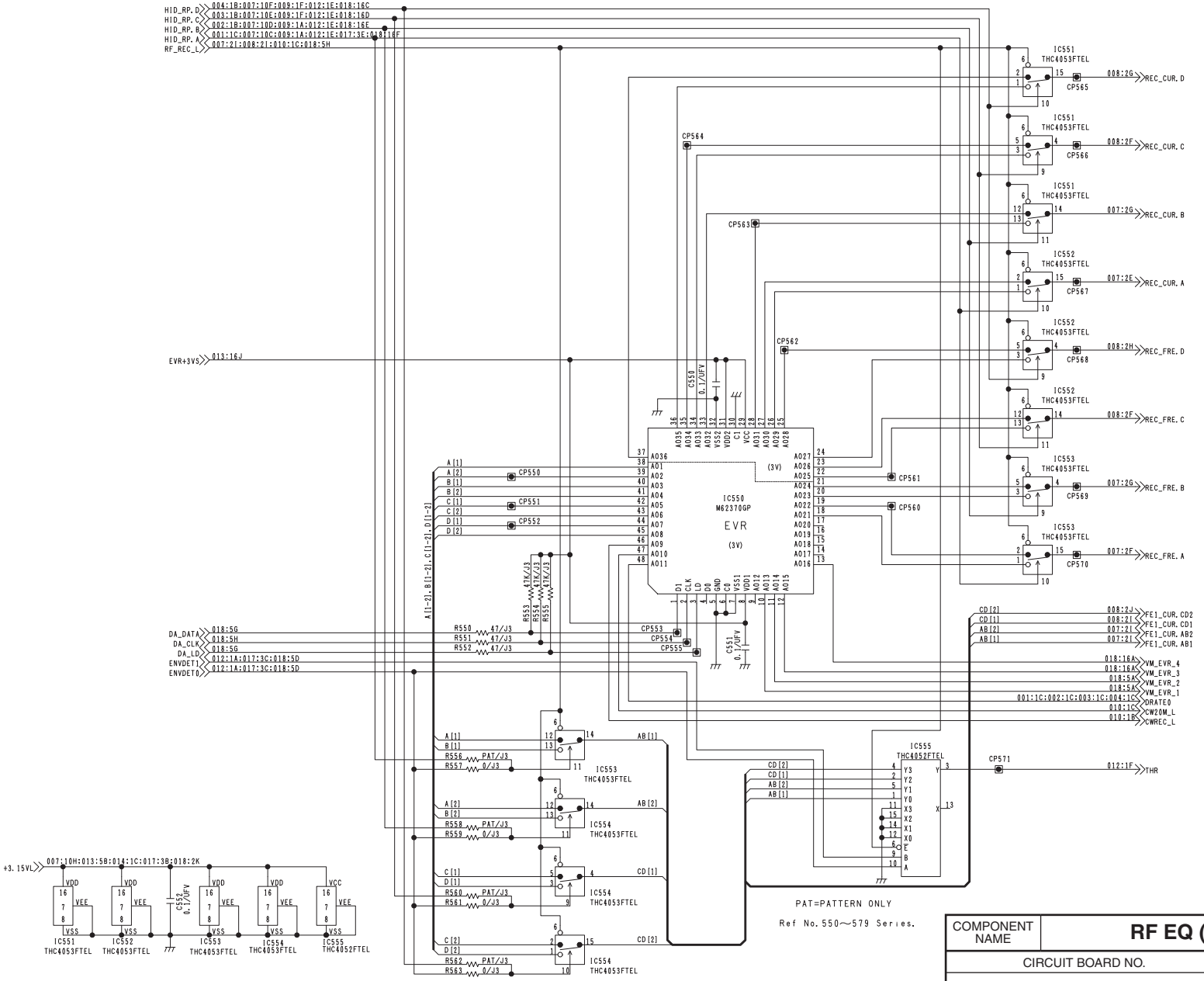


COMPONENT NAME	RF EQ (EQ Dch)	04/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (4/18)-1
		SCM047

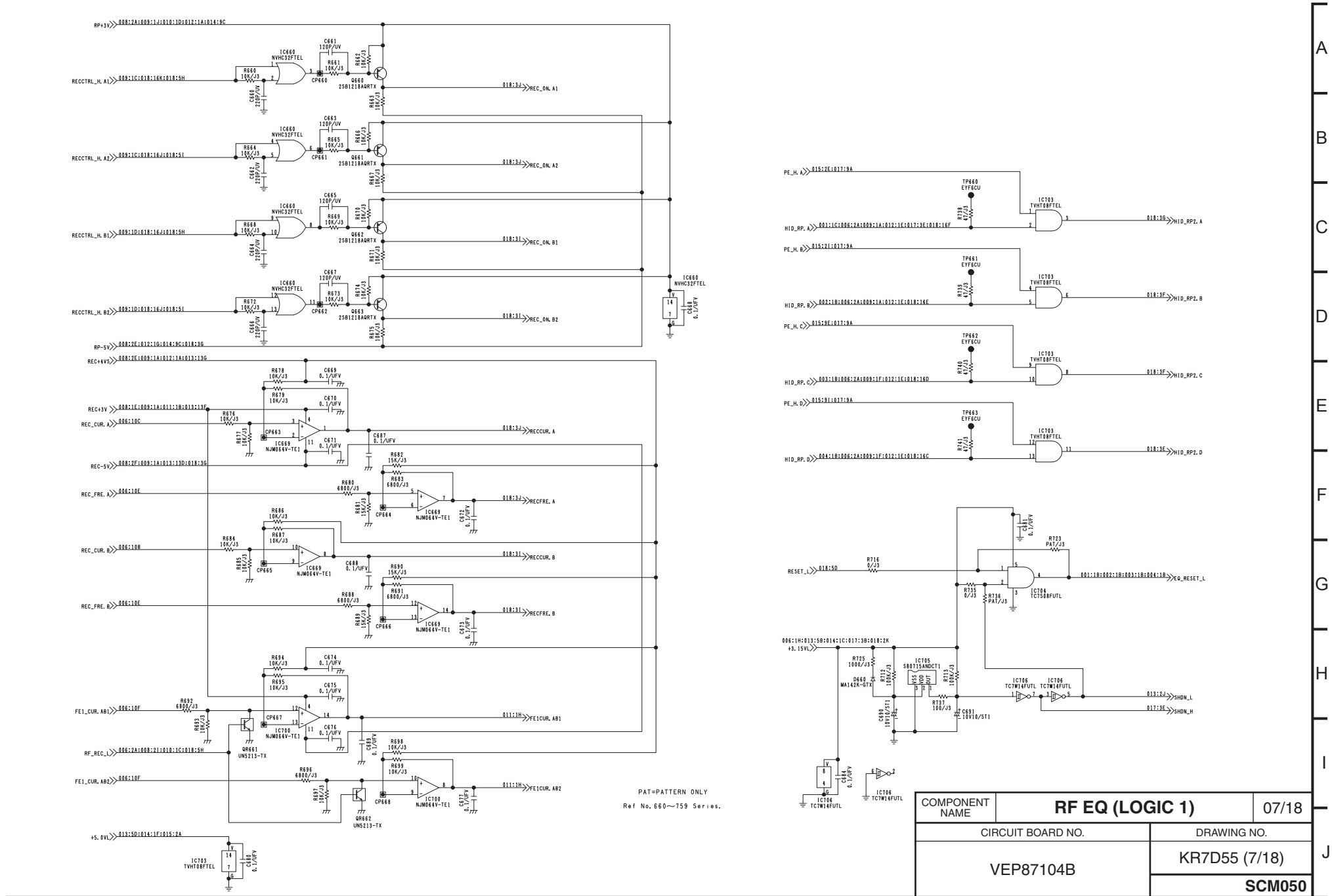


PAT=PATTERN ONLY
Ref No. 400～549 Series.

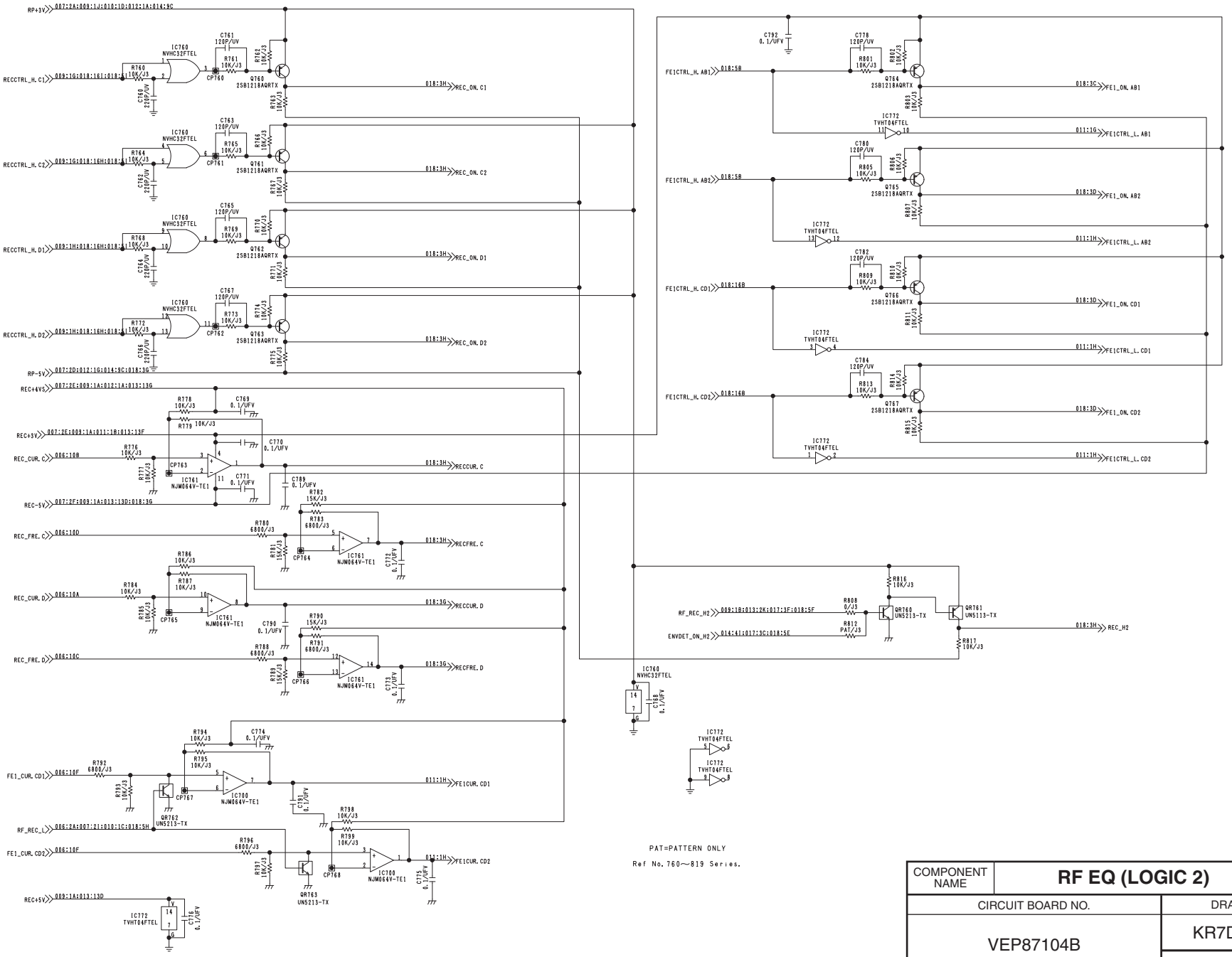
COMPONENT NAME	RF EQ (AMP)	05/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (5/18)
		SCM048



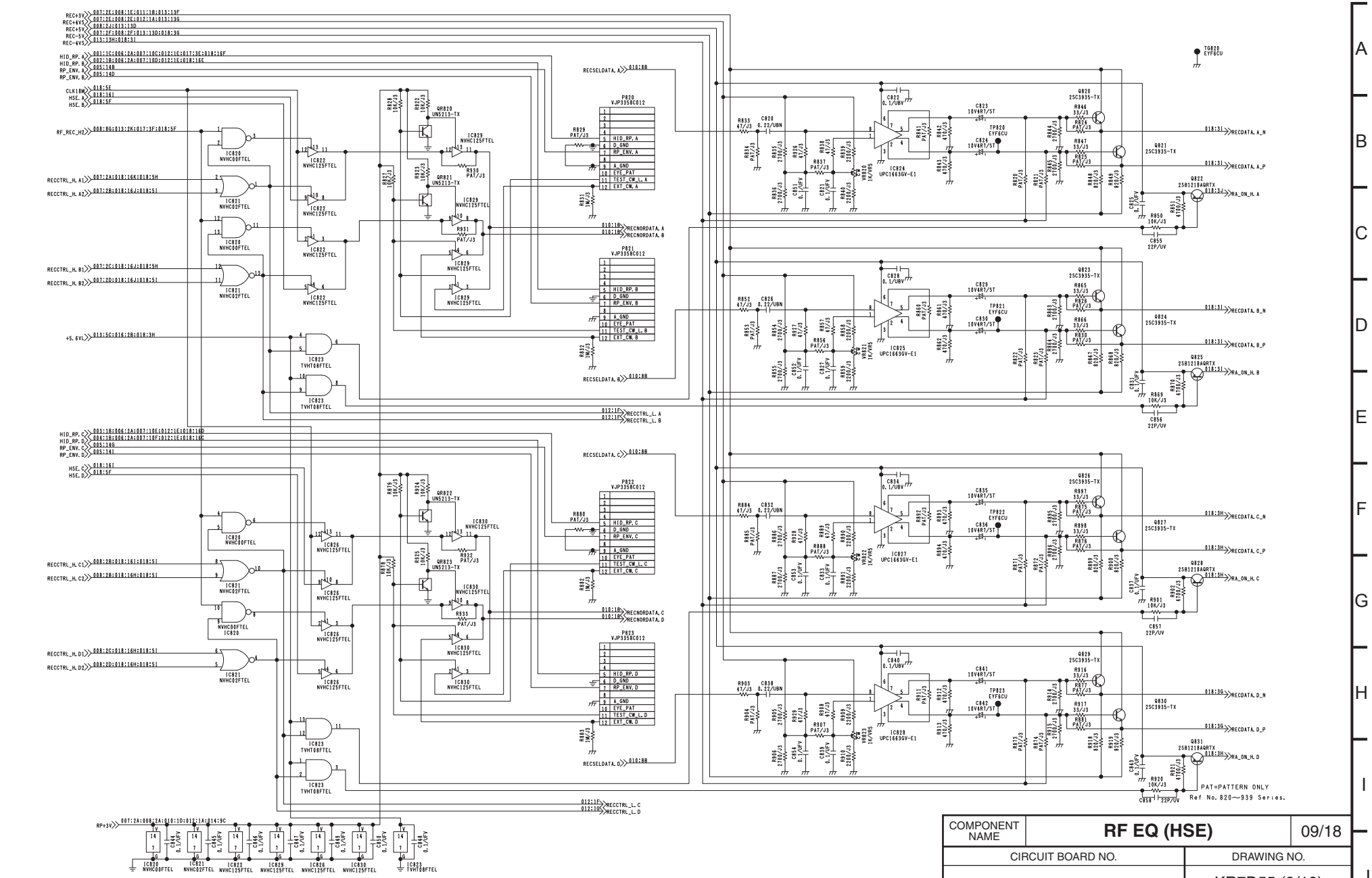
COMPONENT NAME	**RF EQ (EVR)**	06/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (6/18)
		SCM049



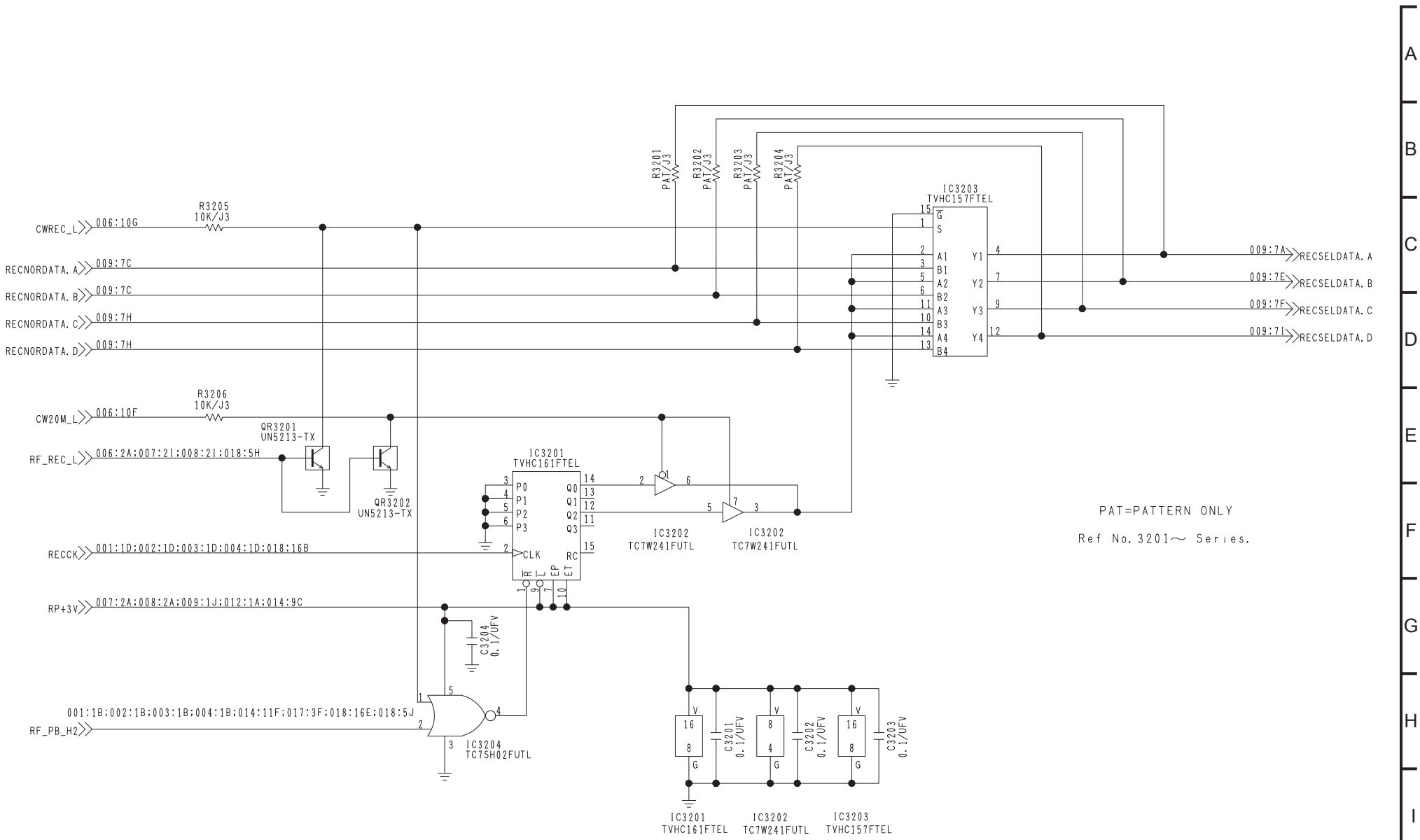
COMPONENT NAME	RF EQ (LOGIC 1)	07/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (7/18)
		SCM050



COMPONENT NAME	**RF EQ (LOGIC 2)**	08/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (8/18)
		SCM051



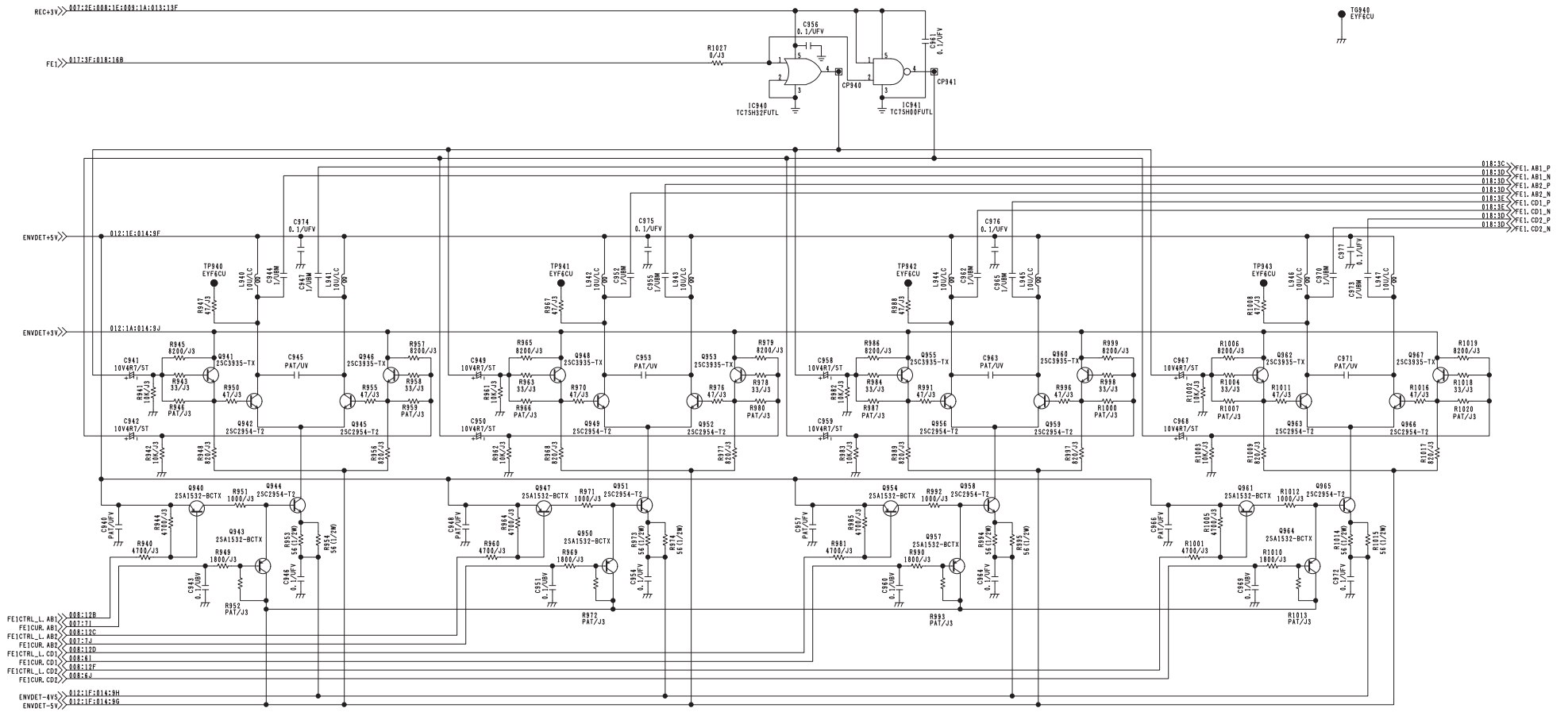
COMPONENT NAME	RF EQ (HSE)	09/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (9/18)
		SCM052



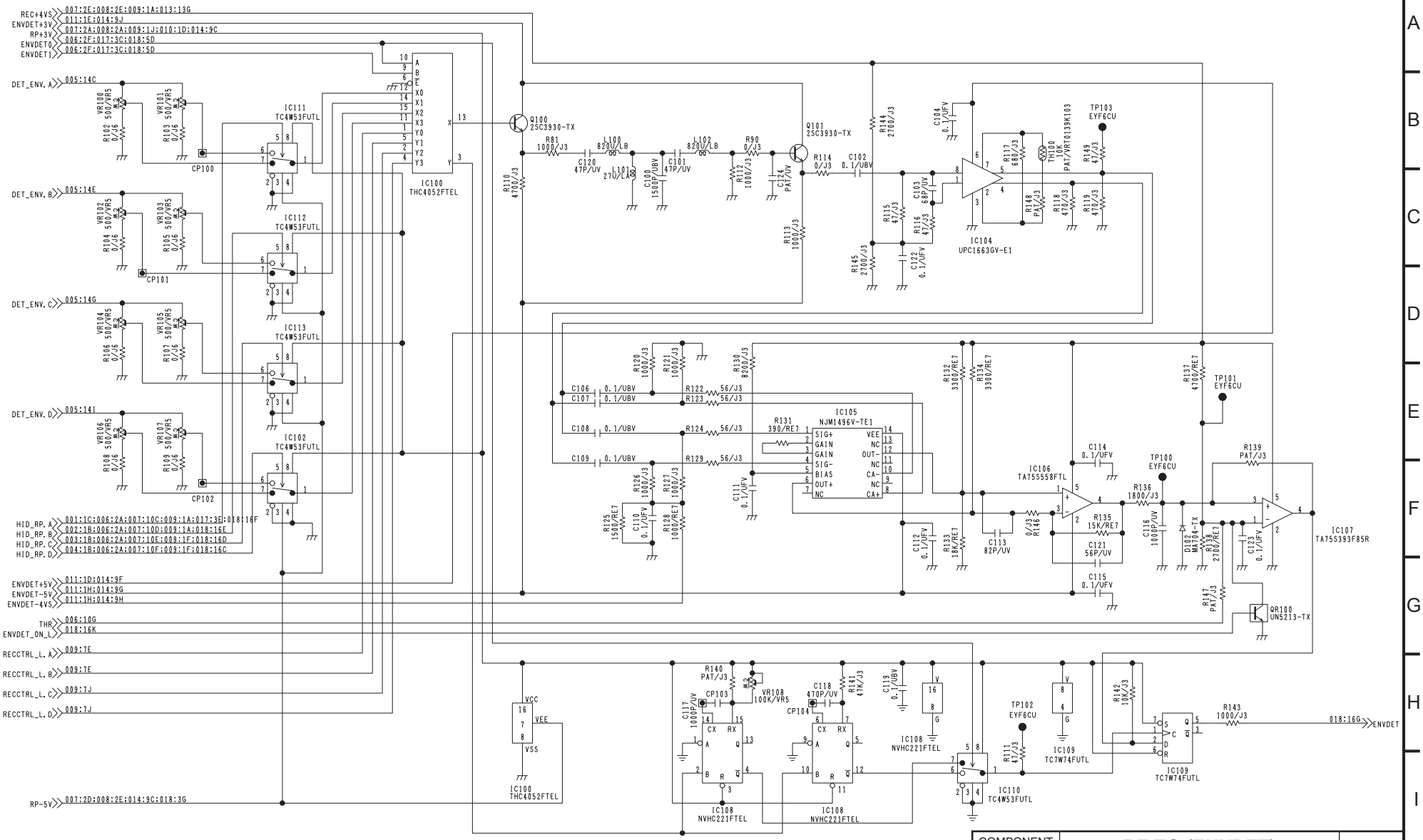
PAT=PATTERN ONLY

Ref No. 3201～ Series.

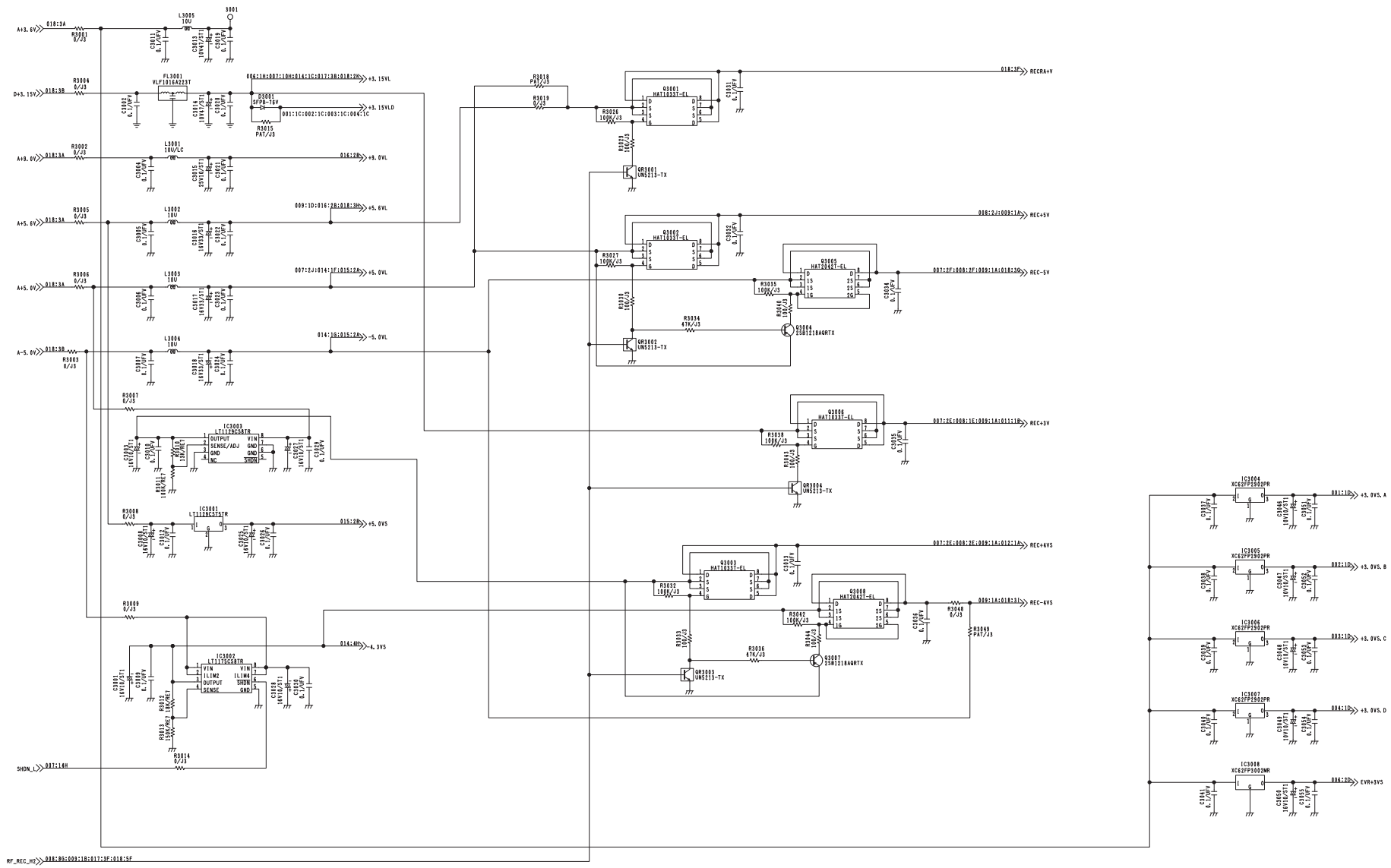
COMPONENT NAME	**RF EQ (REC DATA SELECT)**	10/18
CIRCUIT BOARD NO.	DRAWING NO.	
VEP87104B	KR7D55 (10/18)-1	
	SCM053	



COMPONENT NAME	RF EQ (FE1)	11/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (11/18)-1
		SCM054



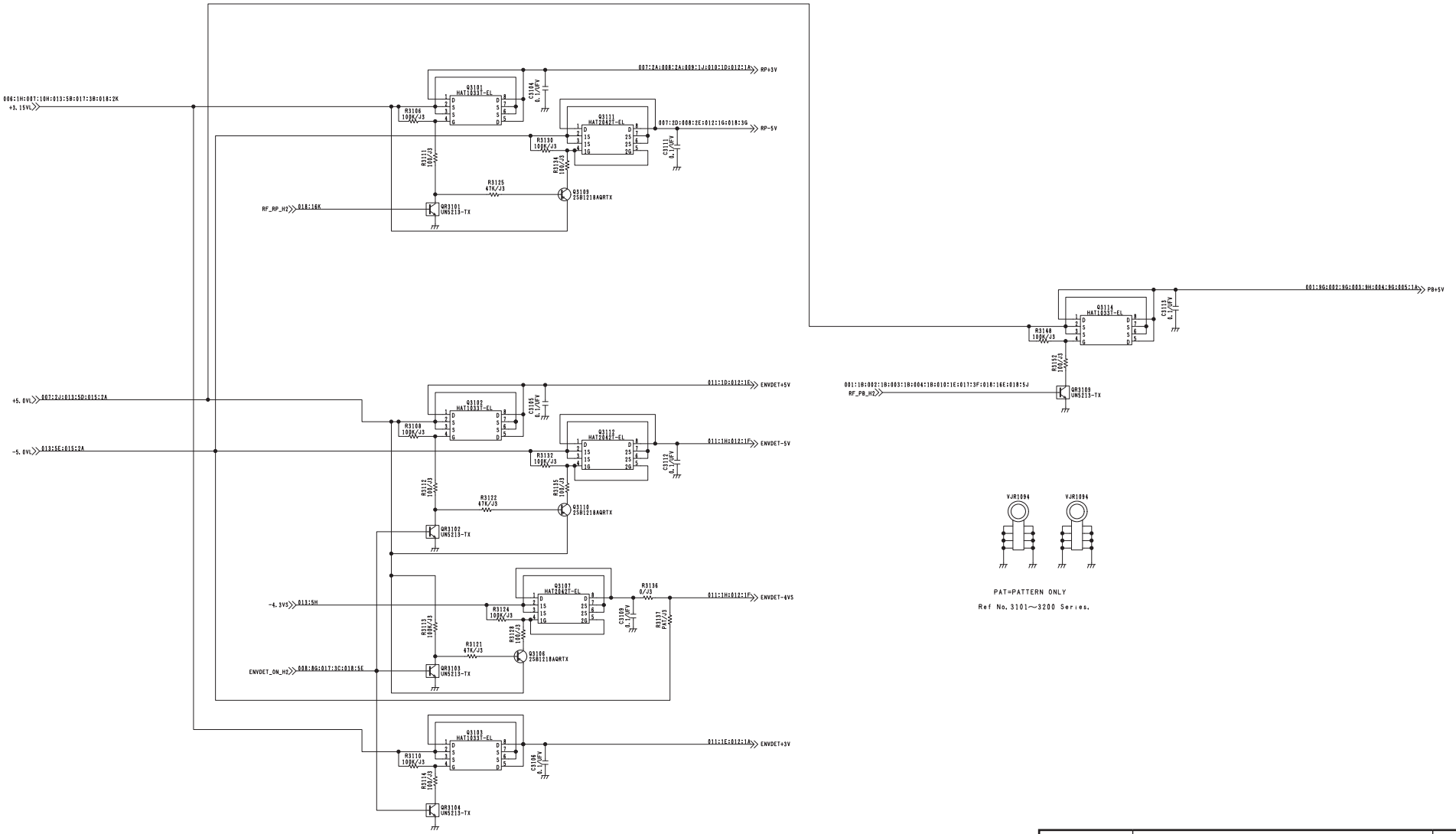
COMPONENT NAME	**RF EQ (ENVDET)**	12/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (12/18)-1
		SCM055



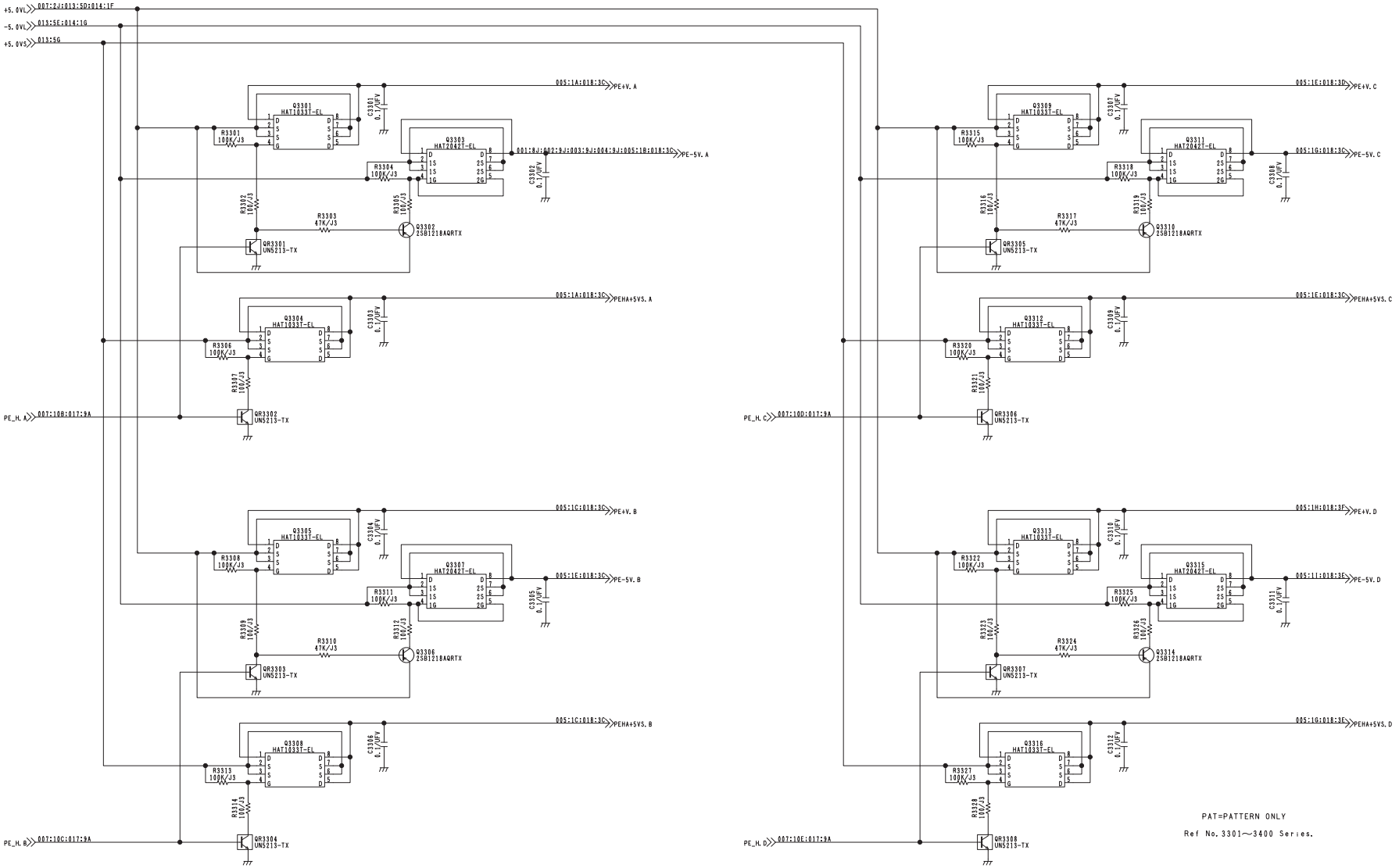
PAT=PATTERN ONLY

Ref No. 3001～3100 Series.

COMPONENT NAME	**RF EQ (POWER 1)**	13/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (13/18)
		SCM056



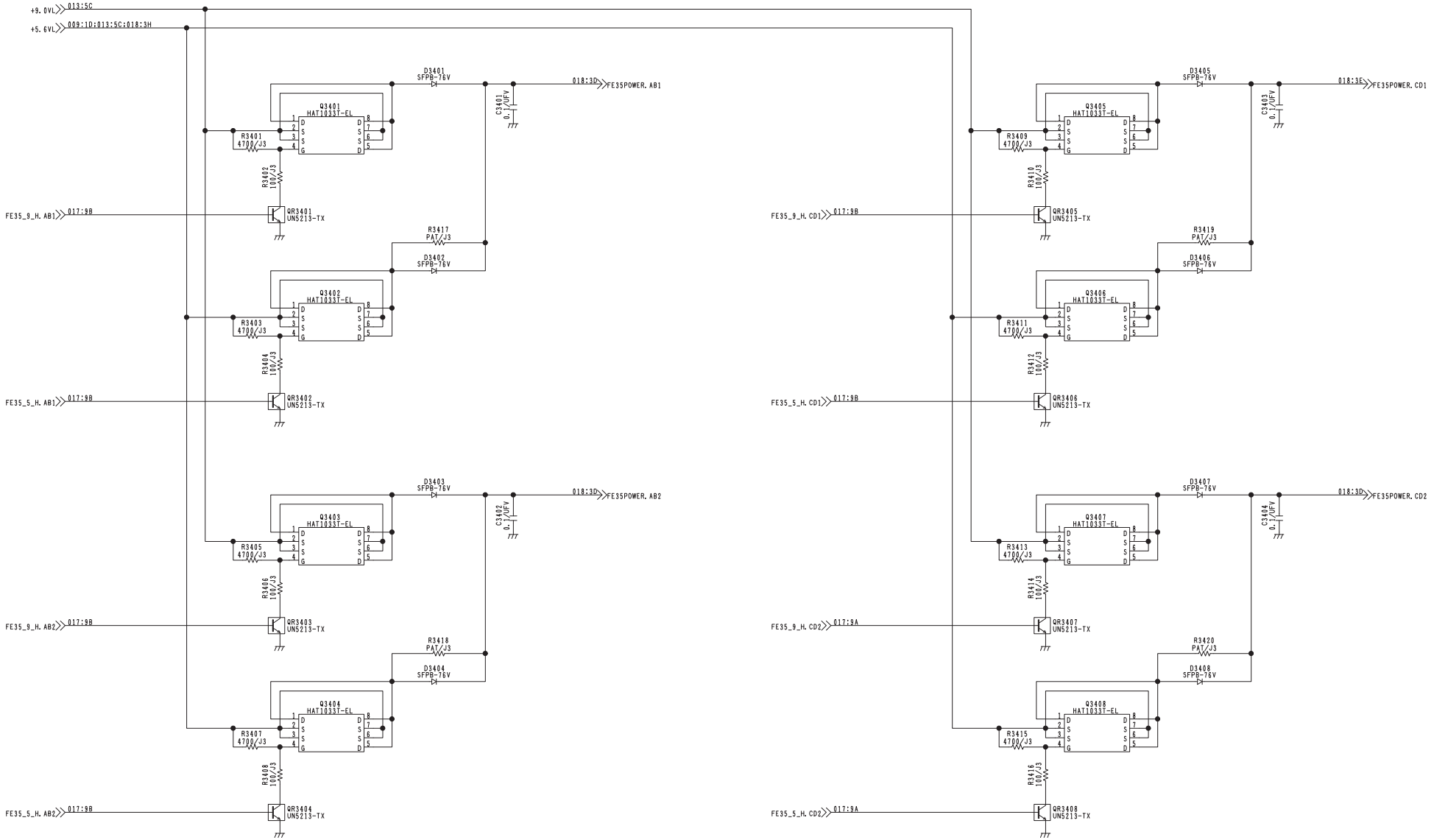
COMPONENT NAME	**RF EQ (POWER 2)**	14/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (14/18)
		SCM057



COMPONENT NAME	RF EQ (POWER 3)	15/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (15/18)
		SCM058

A B C D E F G H I J

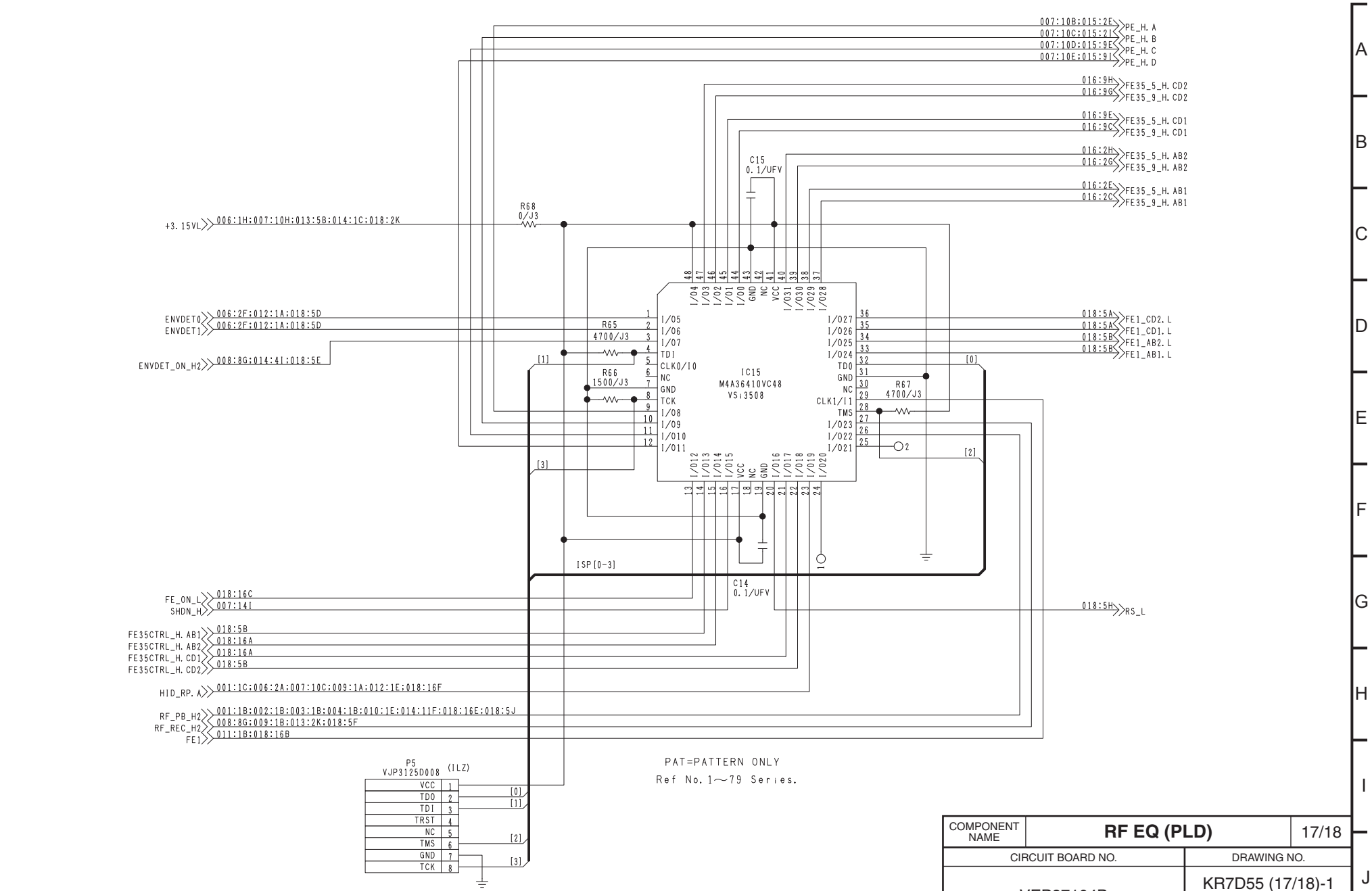
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



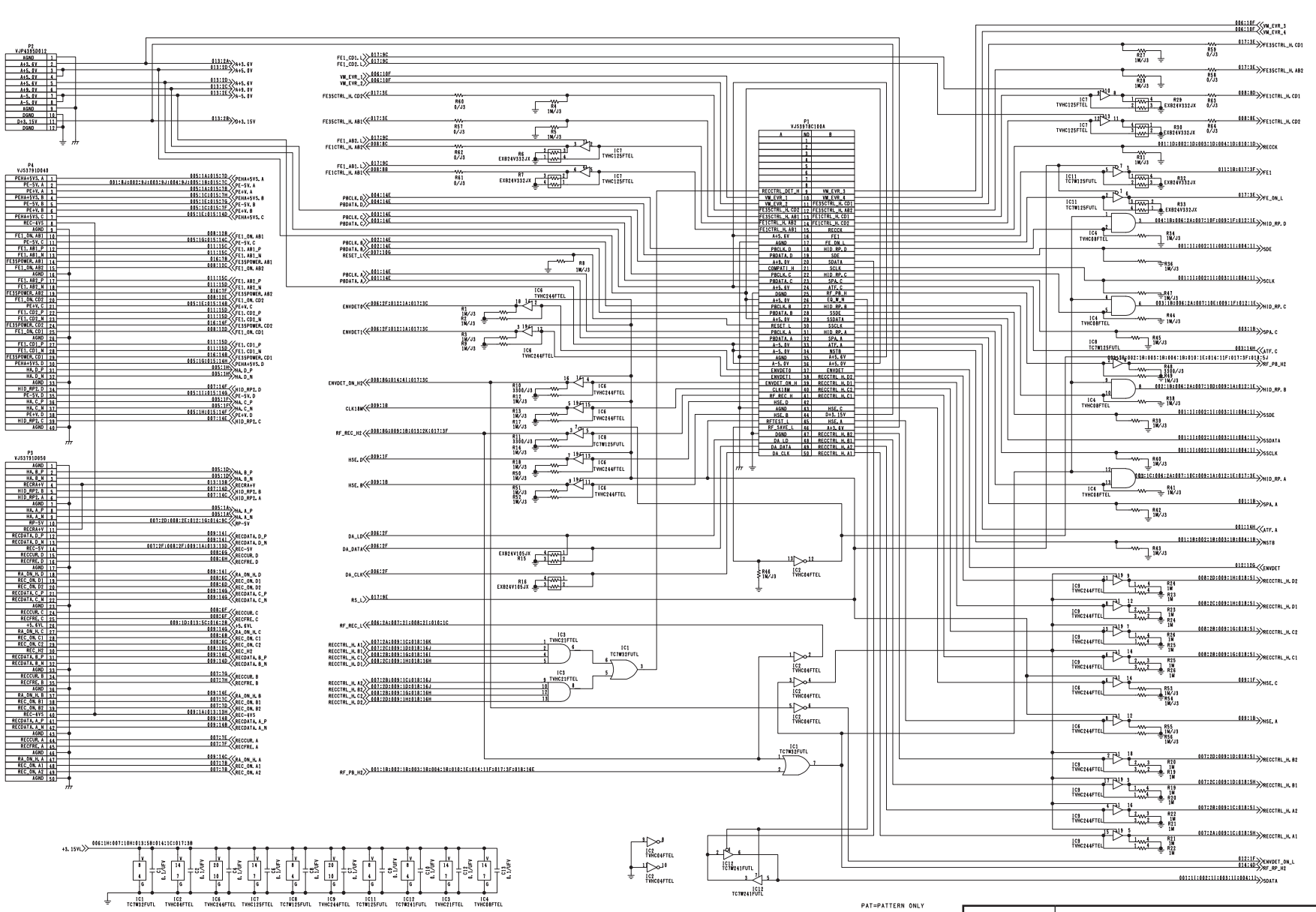
PAT=PATTERN ONLY

Ref No.3401～3500 Series.

COMPONENT NAME	RF EQ (POWER 4)	16/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (16/18)-1
		SCM059



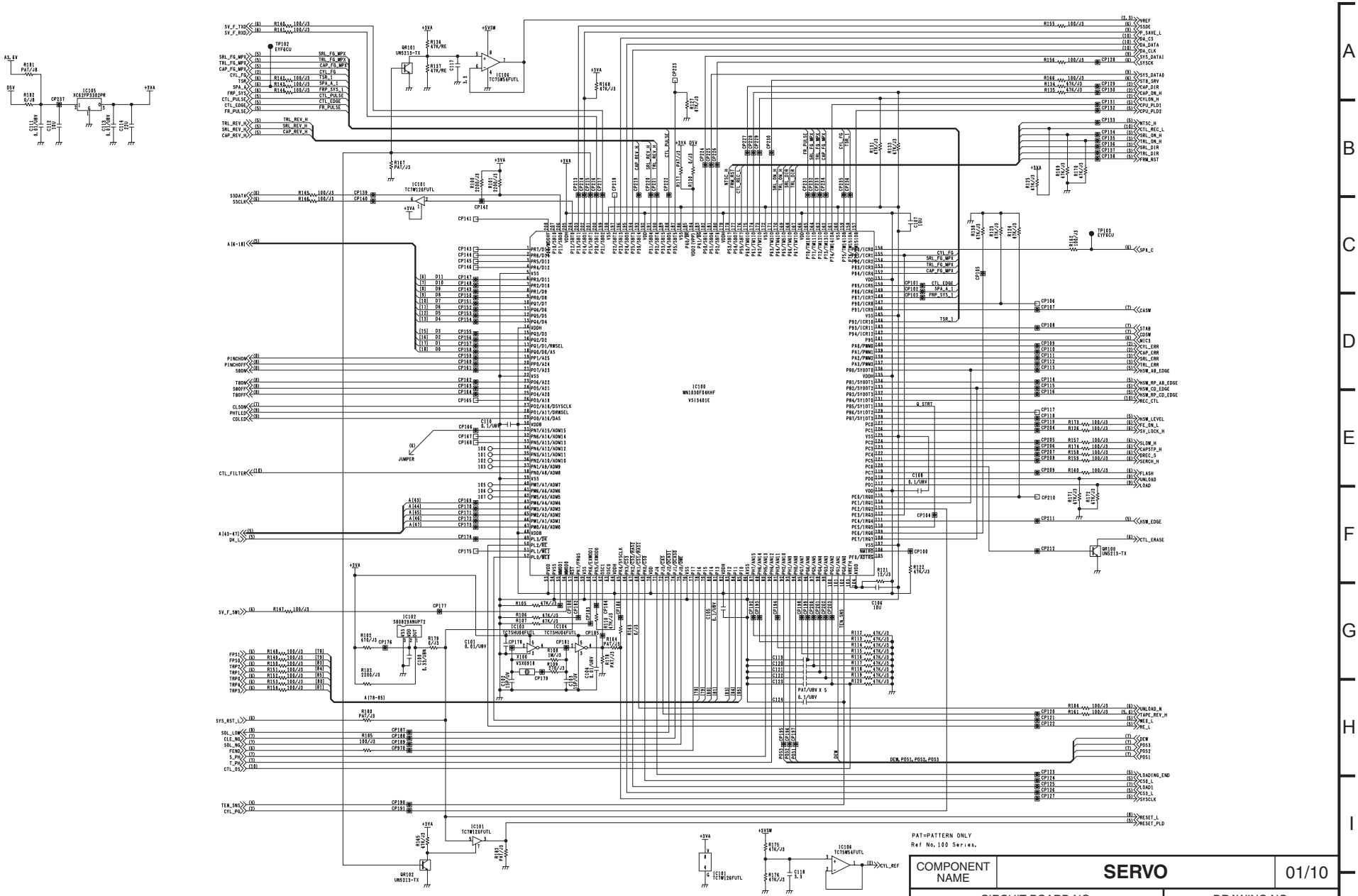
COMPONENT NAME	RF EQ (PLD)	17/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (17/18)-1
		SCM060



PAT=PATTERN ONLY

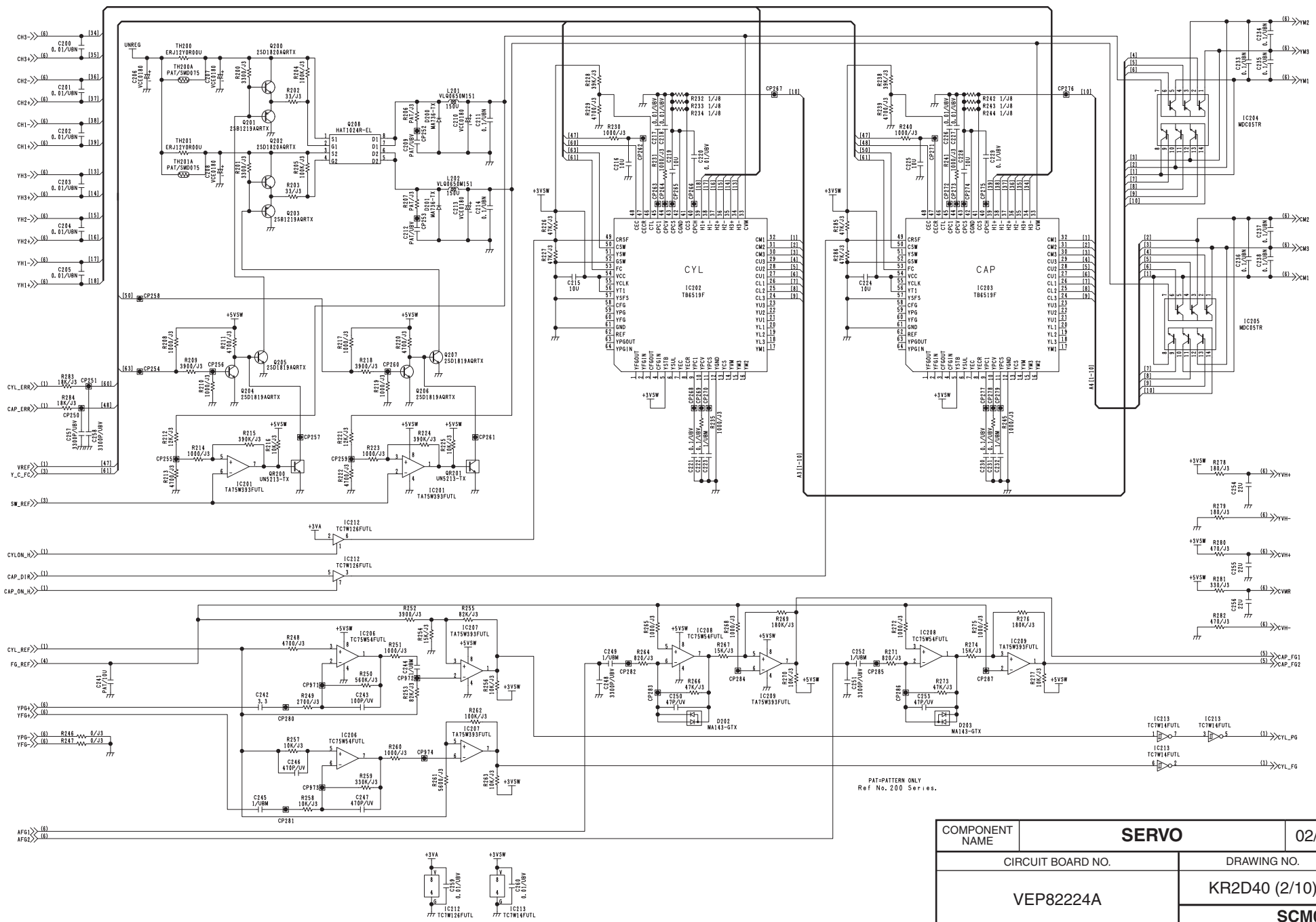
Ref No. 1~79 Series.

COMPONENT NAME	**RF EQ (CONNECTOR)**	18/18
CIRCUIT BOARD NO.		DRAWING NO.
VEP87104B		KR7D55 (18/18)-1
		SCM061

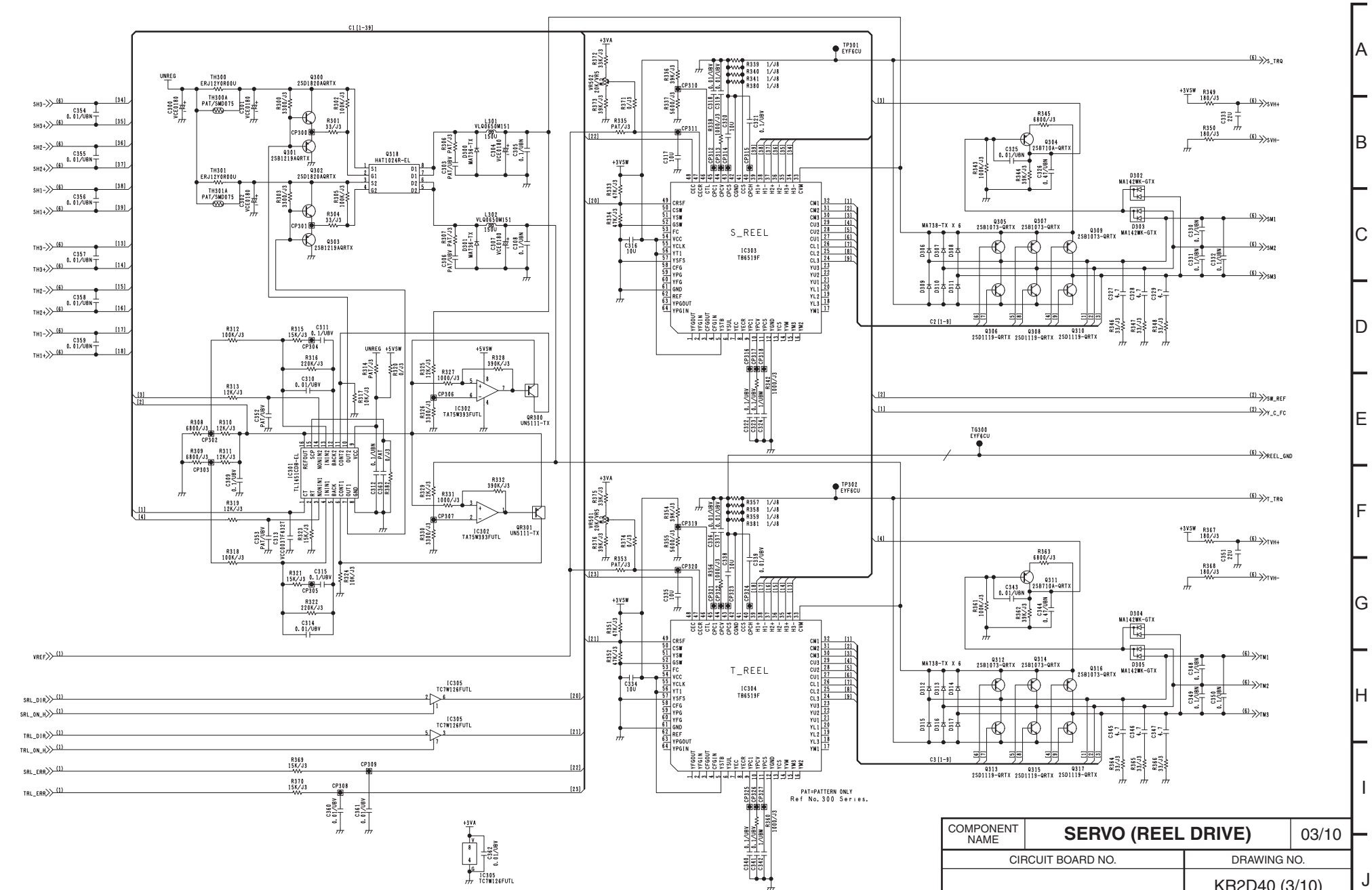


PAT=PATTERN ONLY
Ref No. 100 Series.

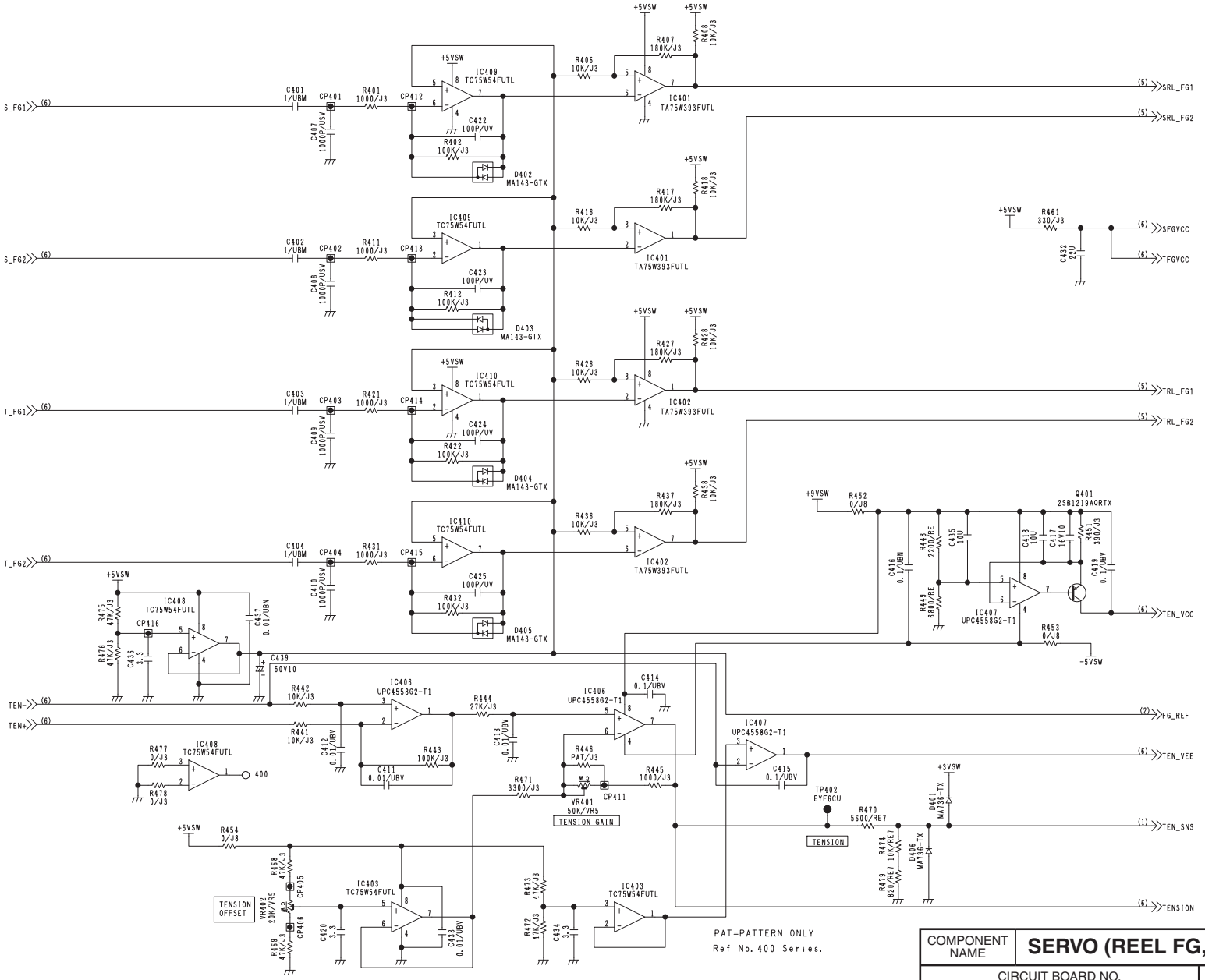
COMPONENT NAME	SERVO	01/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (1/10)-2
		SCM062



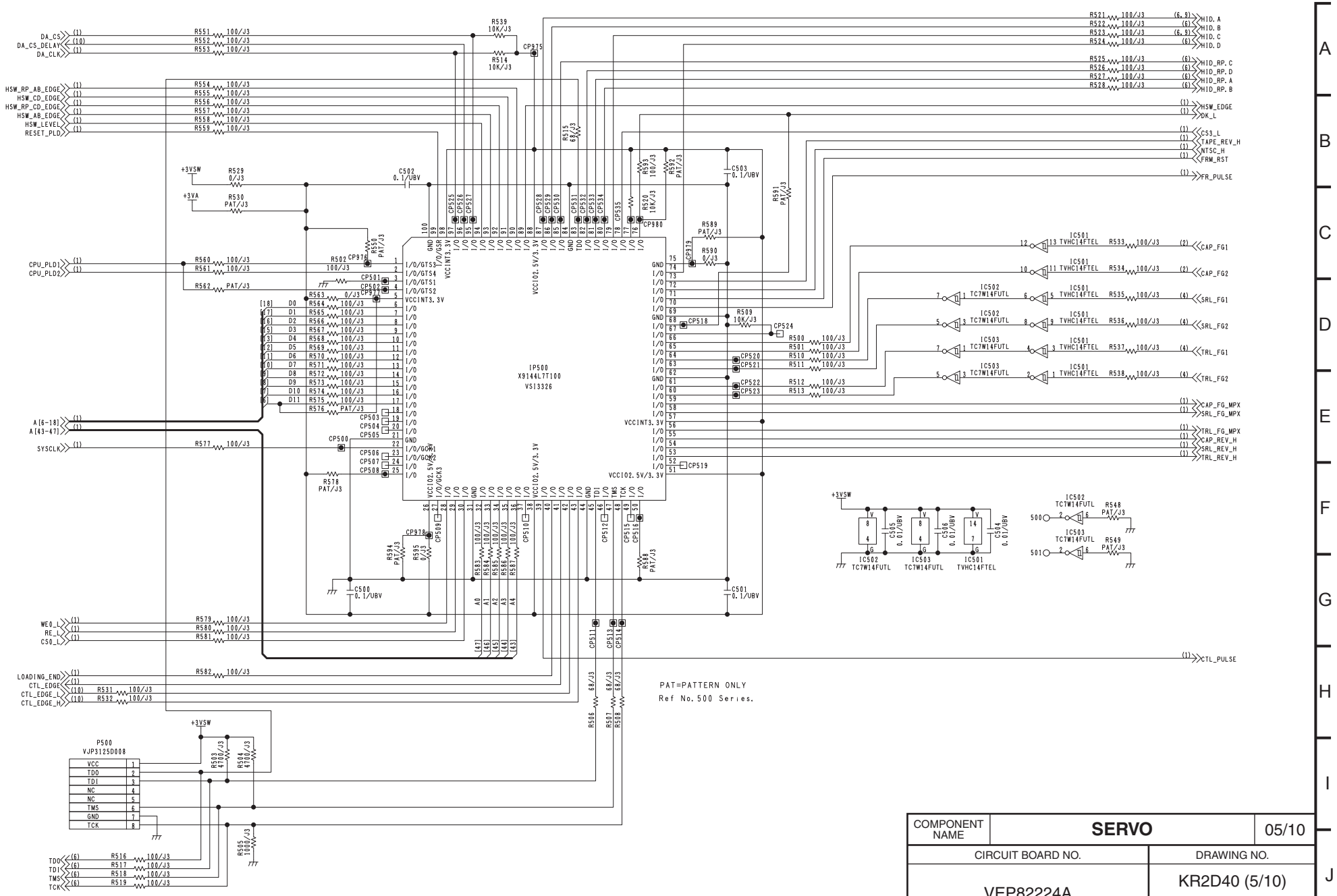
COMPONENT NAME	SERVO	02/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (2/10)
		SCM063



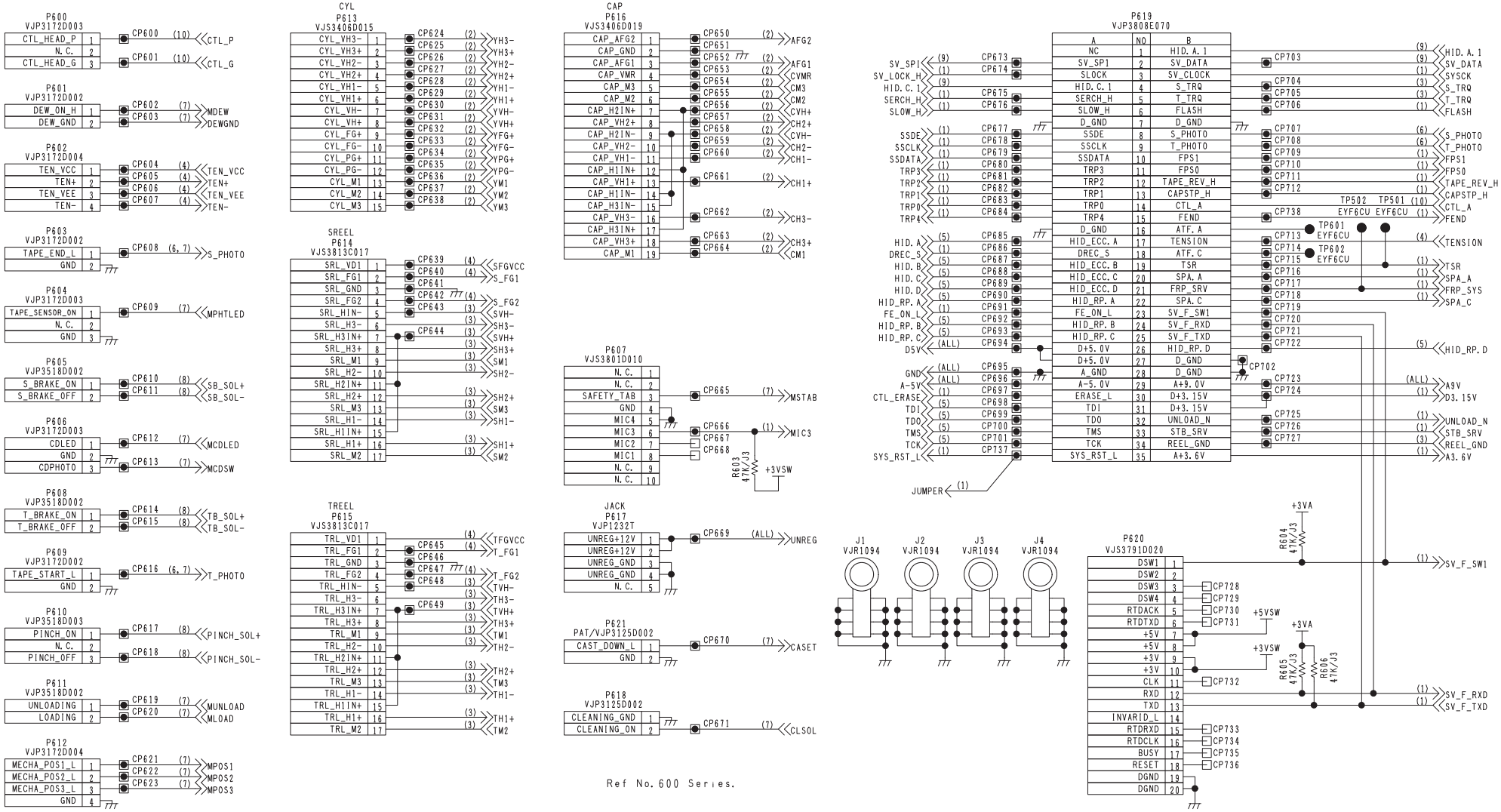
COMPONENT NAME	SERVO (REEL DRIVE)	03/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (3/10)
		SCM064



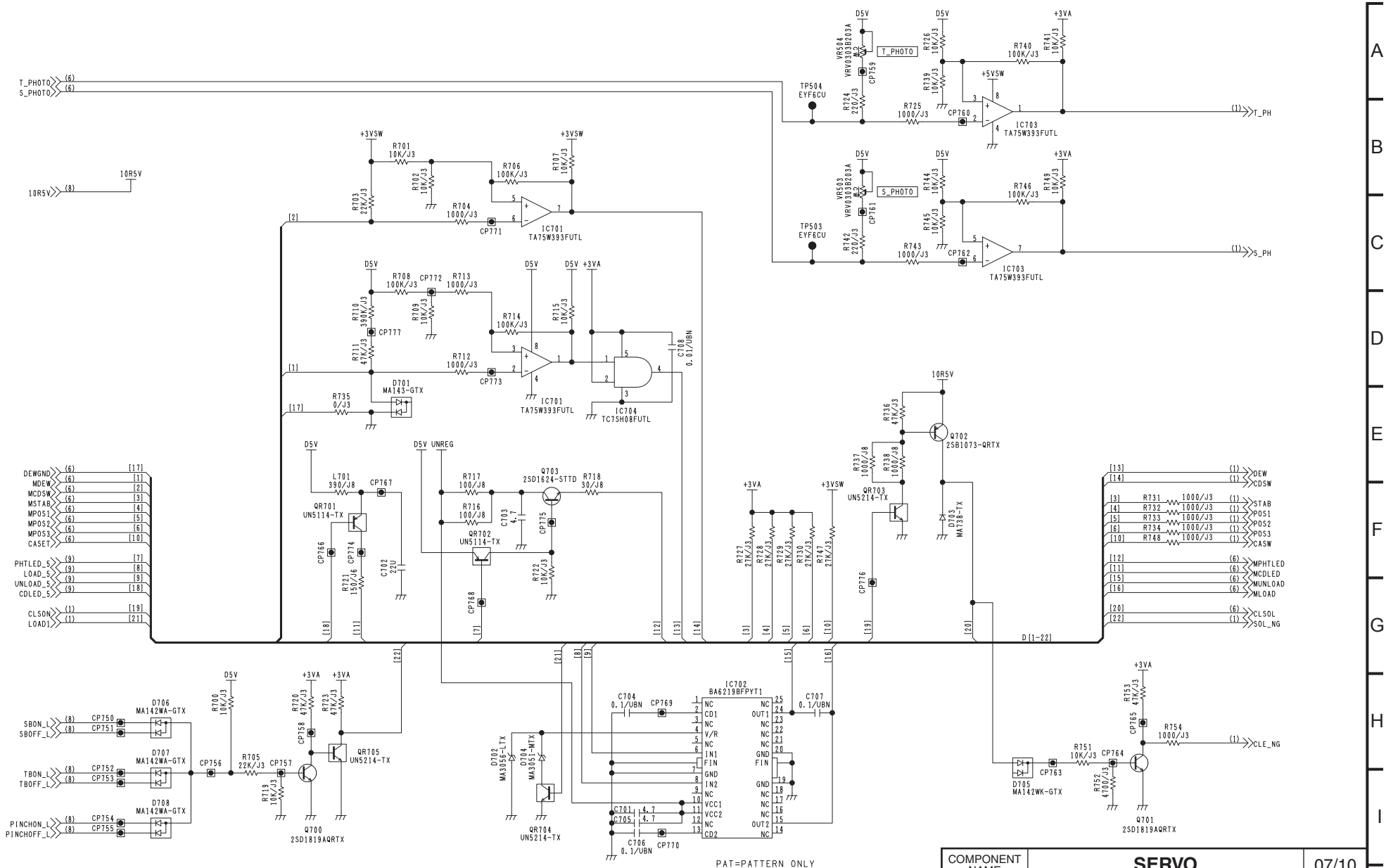
COMPONENT NAME	SERVO (REEL FG, TENSION)	04/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (4/10)-1
		SCM065



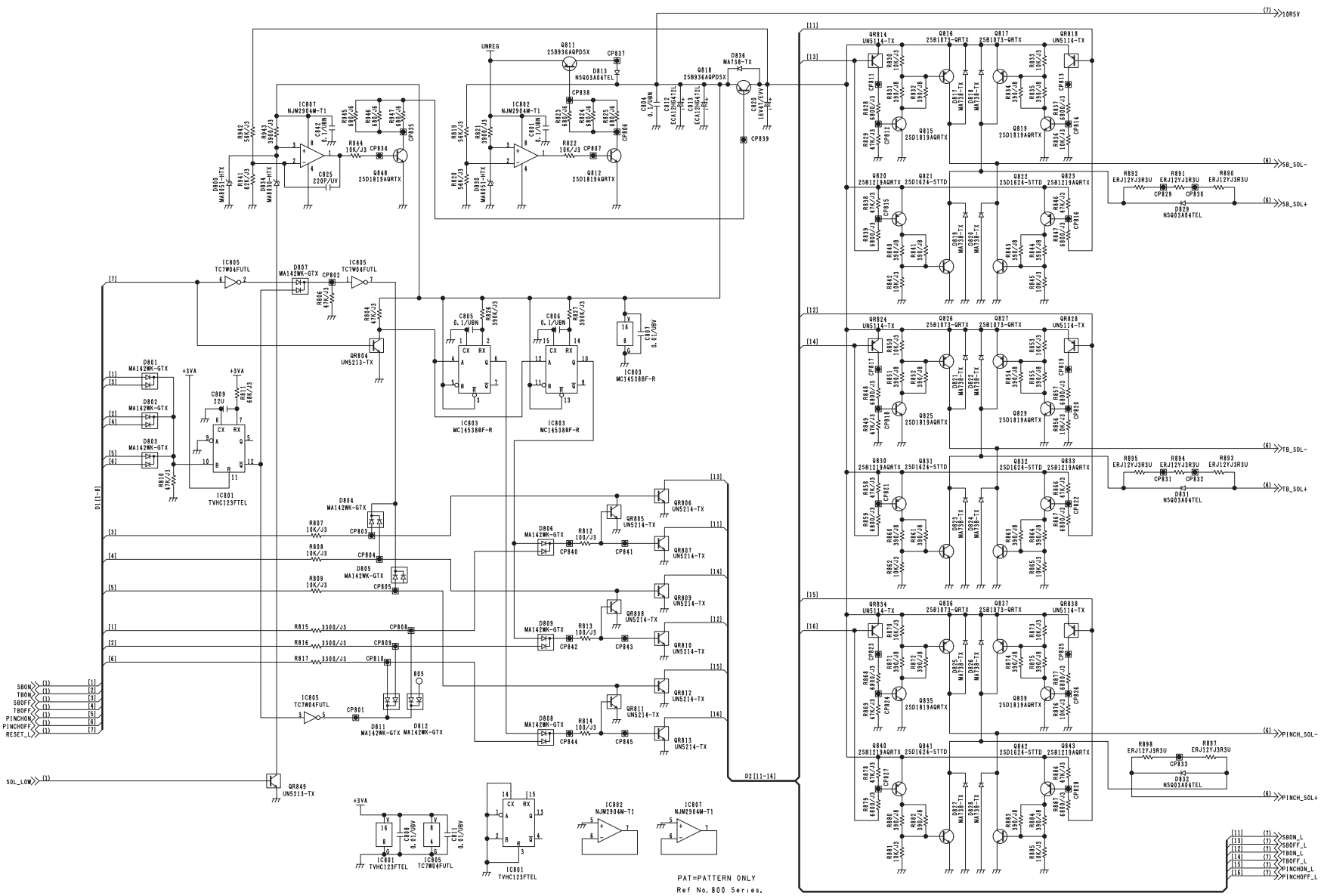
COMPONENT NAME	SERVO	05/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (5/10)
		SCM066



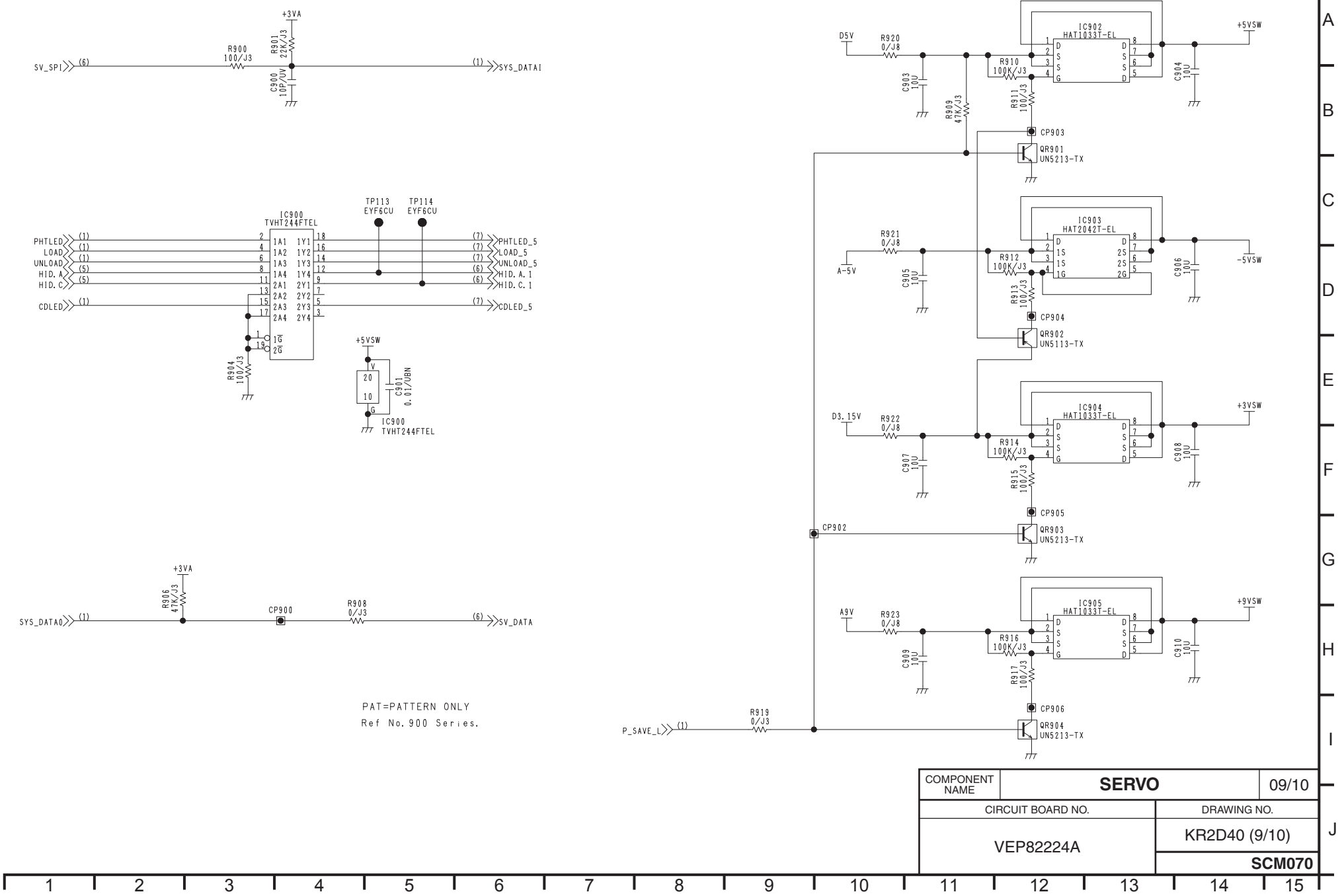
COMPONENT NAME	SERVO	06/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (6/10)
		SCM067



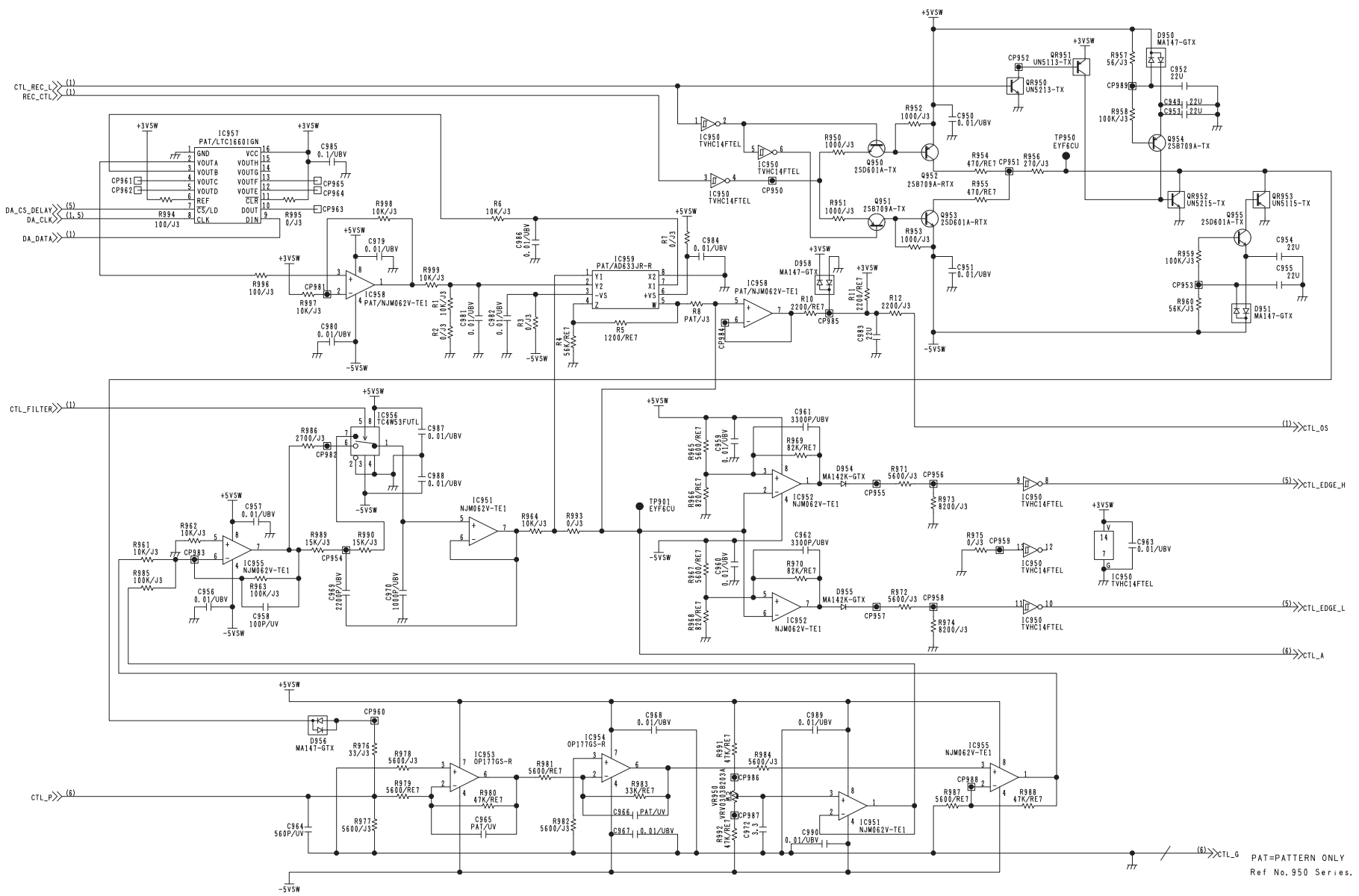
COMPONENT NAME	SERVO	07/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (7/10)-1
		SCM068



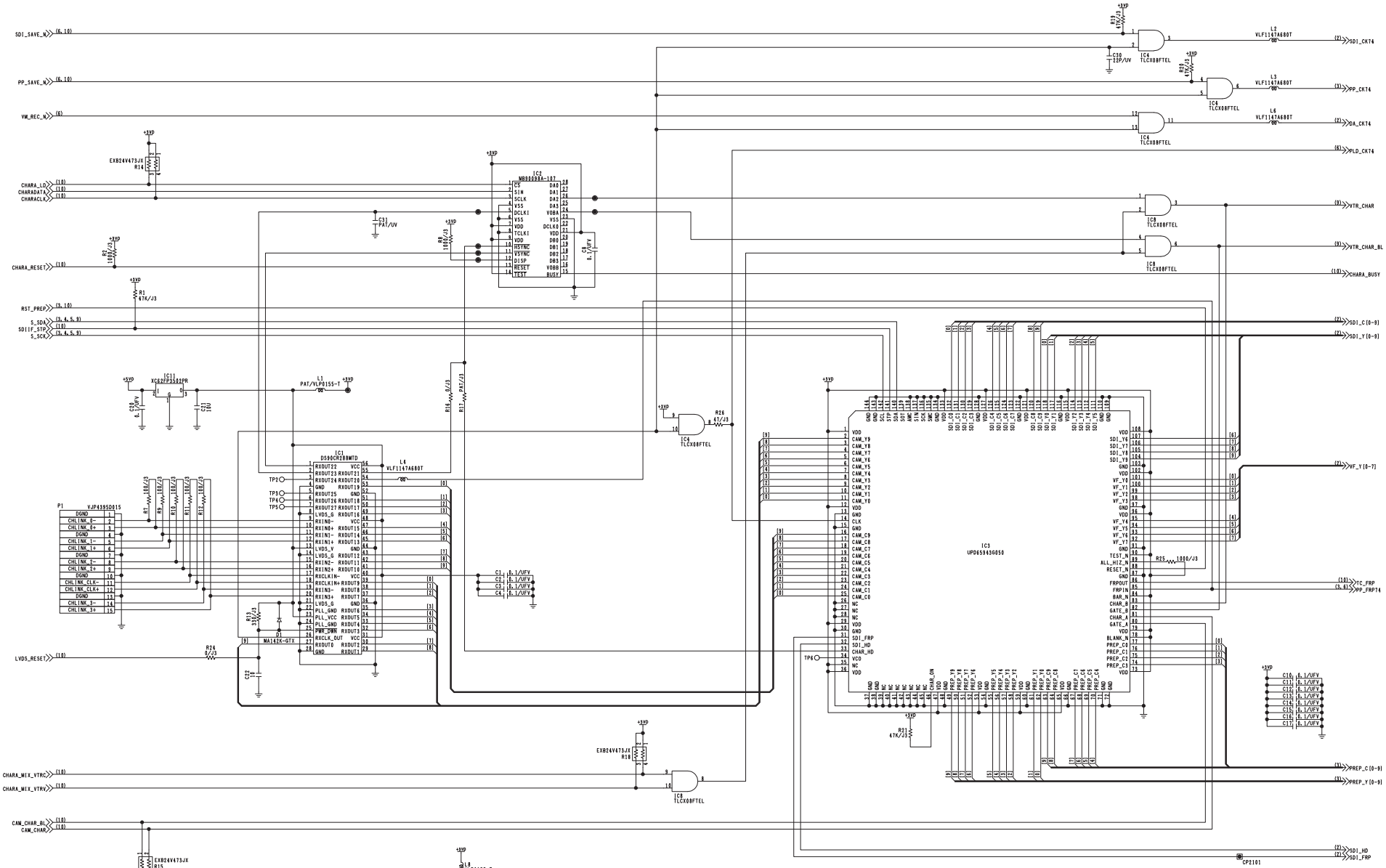
COMPONENT NAME	SERVO	08/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (8/10)
		SCM069



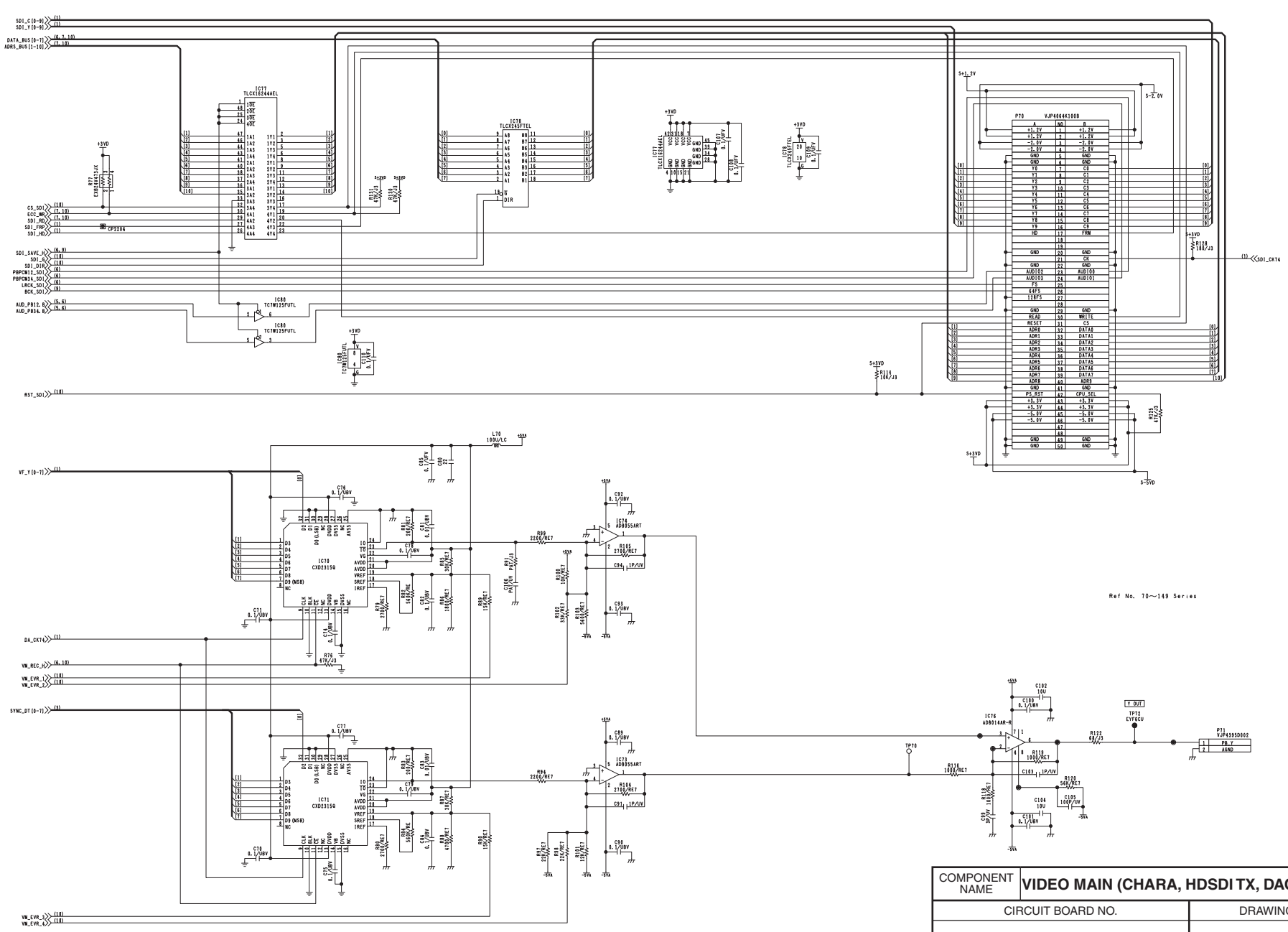
COMPONENT NAME	SERVO	09/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (9/10)
		SCM070



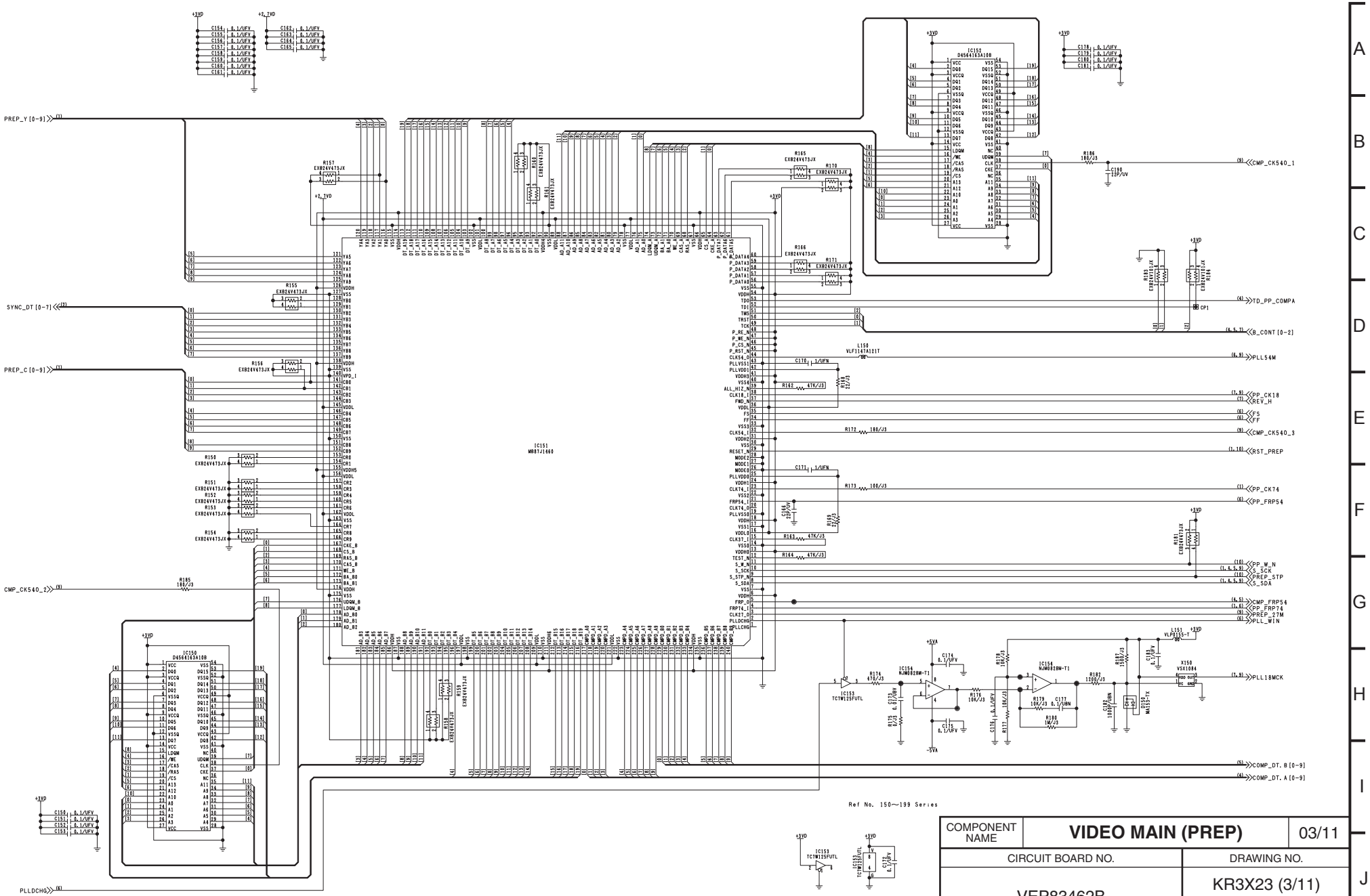
COMPONENT NAME	SERVO	10/10
CIRCUIT BOARD NO.		DRAWING NO.
VEP82224A		KR2D40 (10/10)
		SCM071



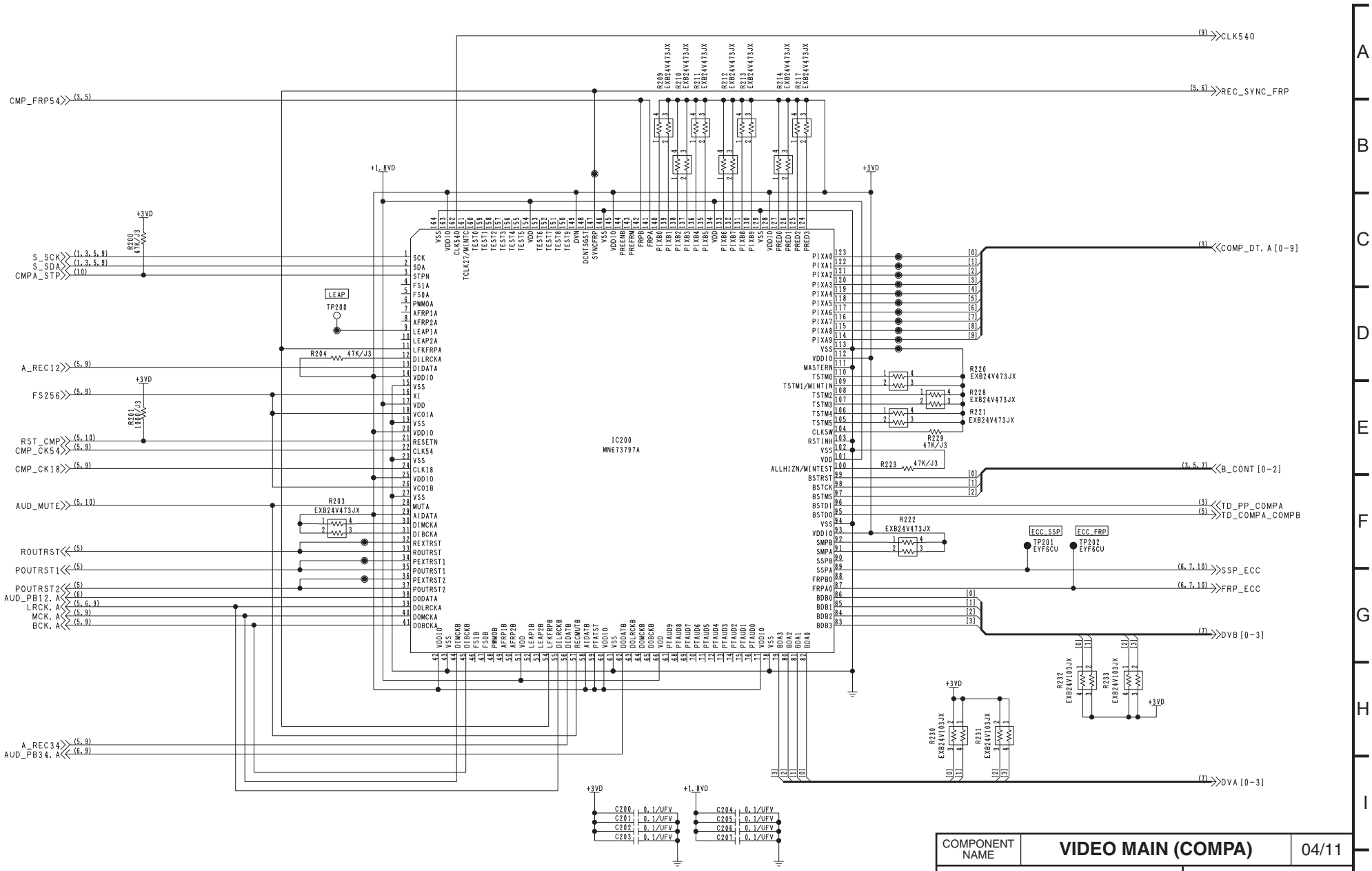
COMPONENT NAME	VIDEO MAIN (L VDS, HD SDI IF)	01/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (1/11)
		SCM072



COMPONENT NAME	**VIDEO MAIN (CHARA, HDSDI TX, DAC)**	02/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (2/11)
		SCM073

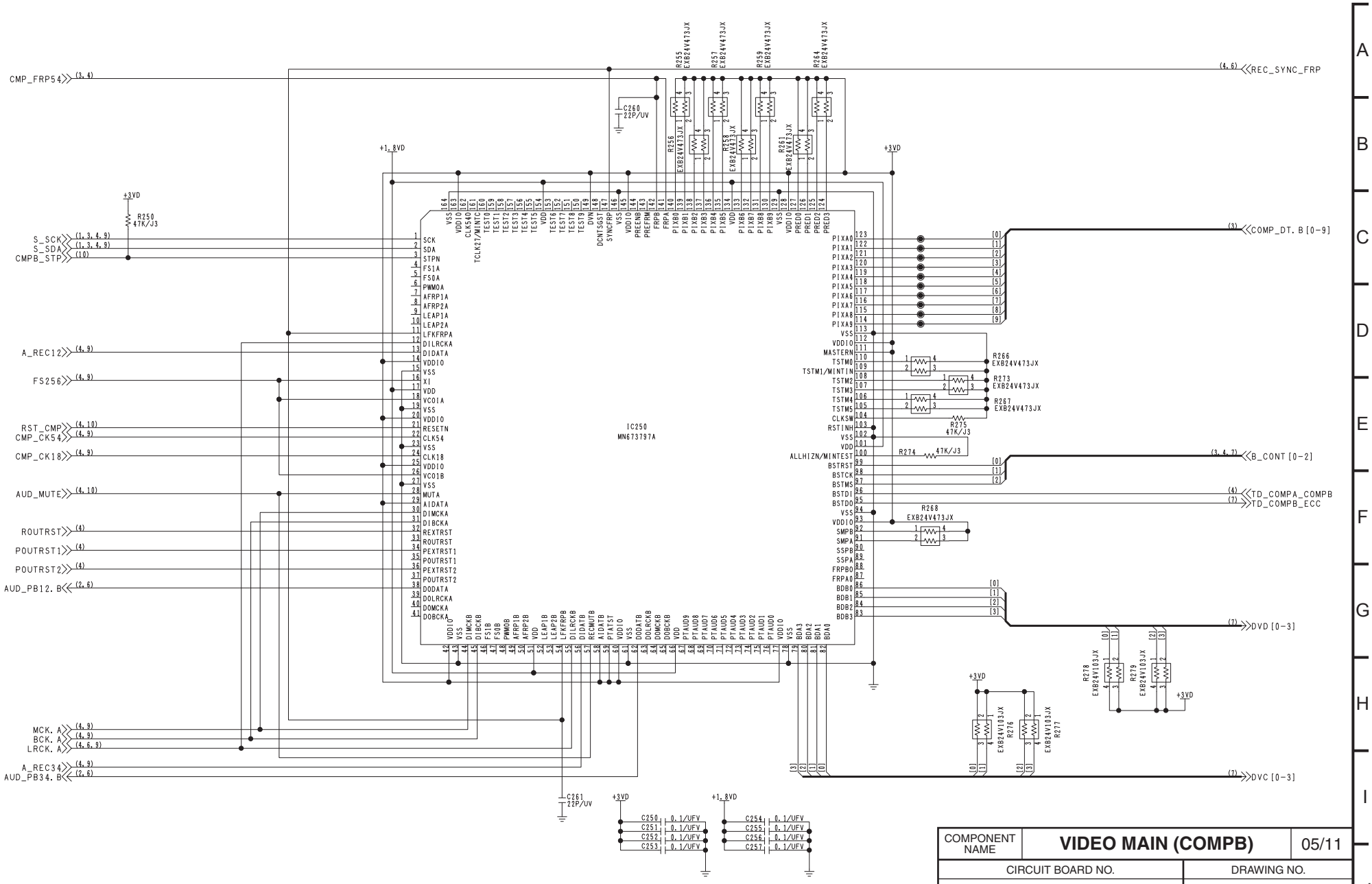


COMPONENT NAME	VIDEO MAIN (PREP)	03/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (3/11)
		SCM074

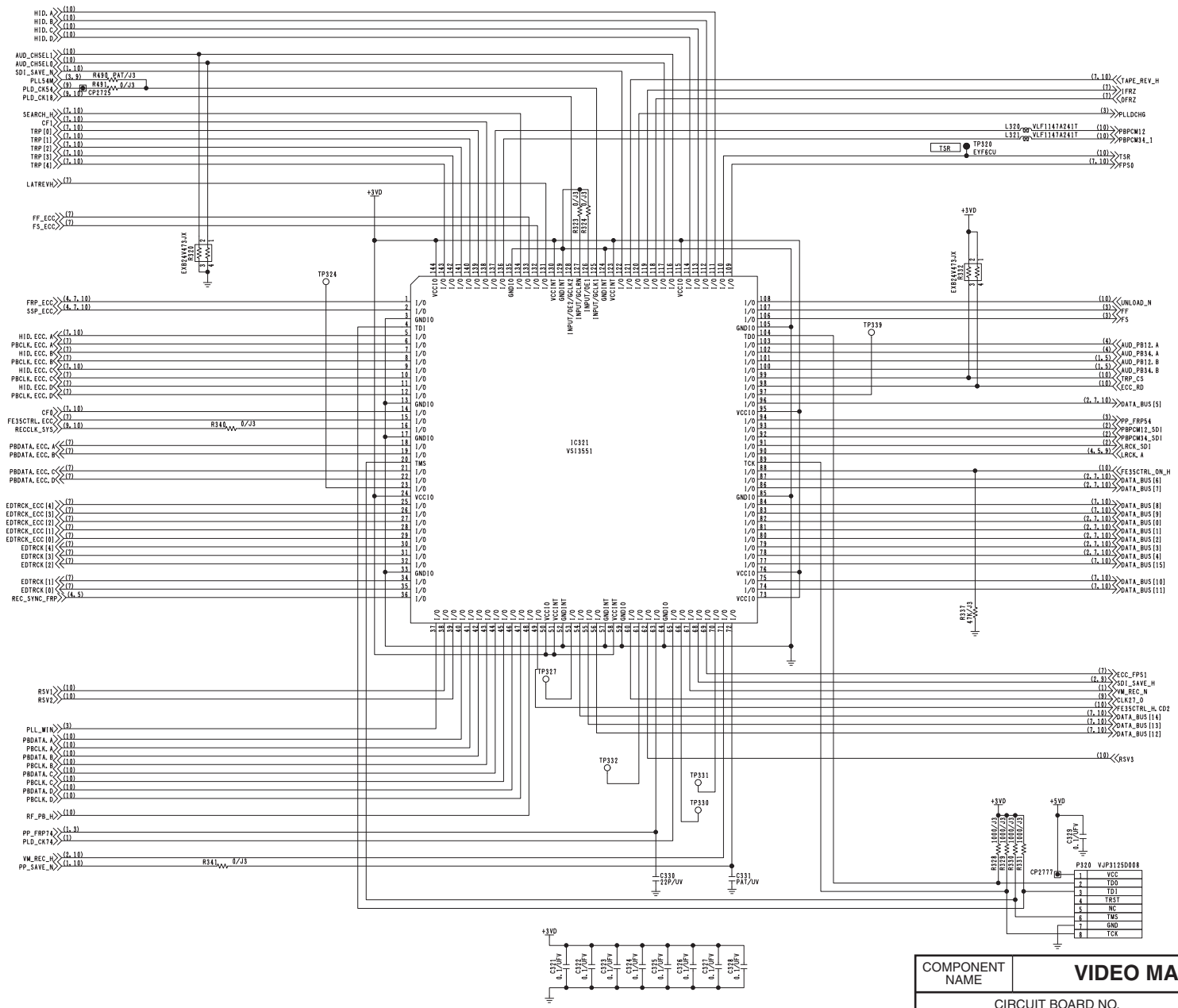


Ref No. 200～249 Series

COMPONENT NAME	**VIDEO MAIN (COMPA)**	04/11
CIRCUIT BOARD NO.	DRAWING NO.	
VEP83462B	KR3X23 (4/11)	
	SCM075	

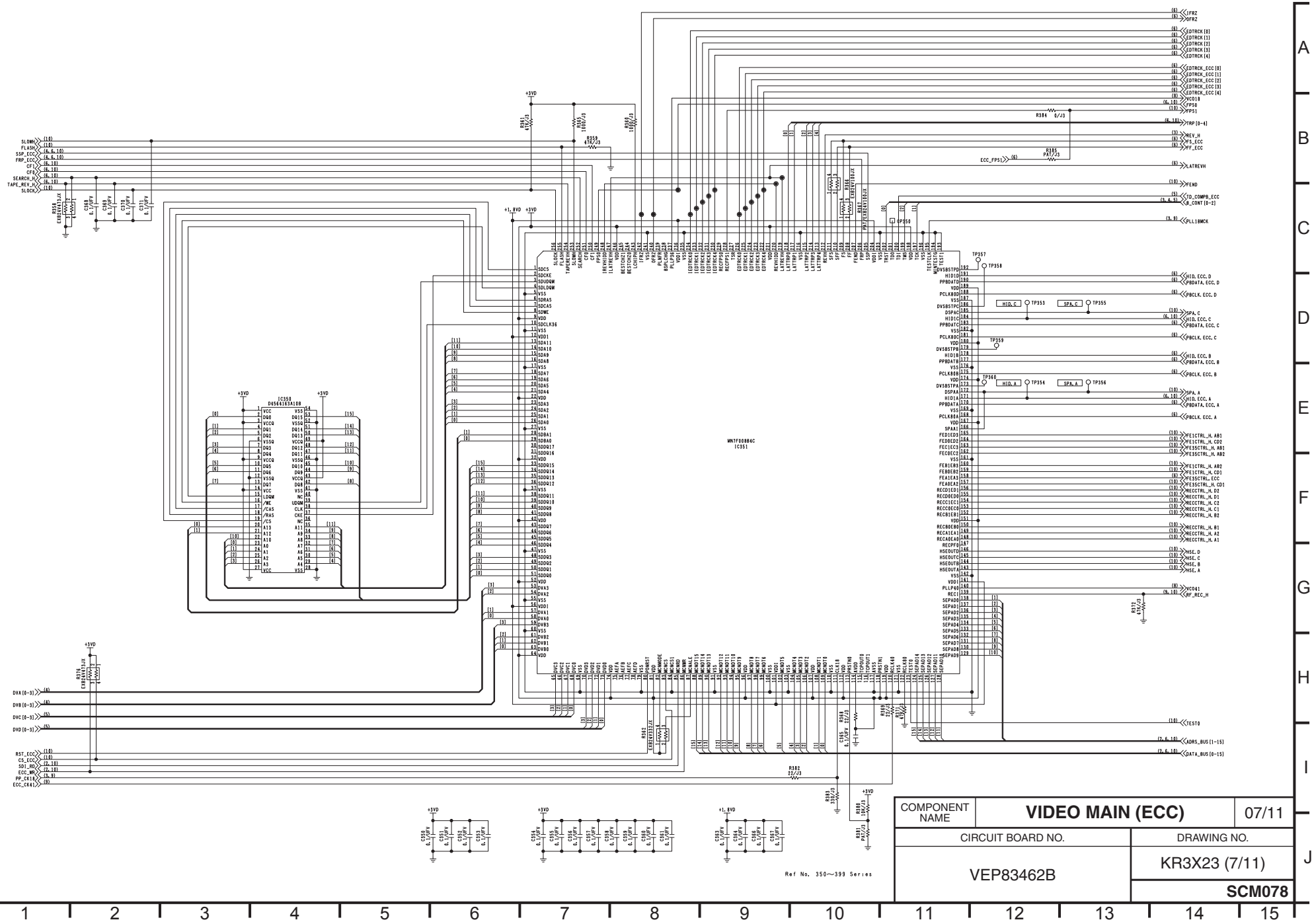


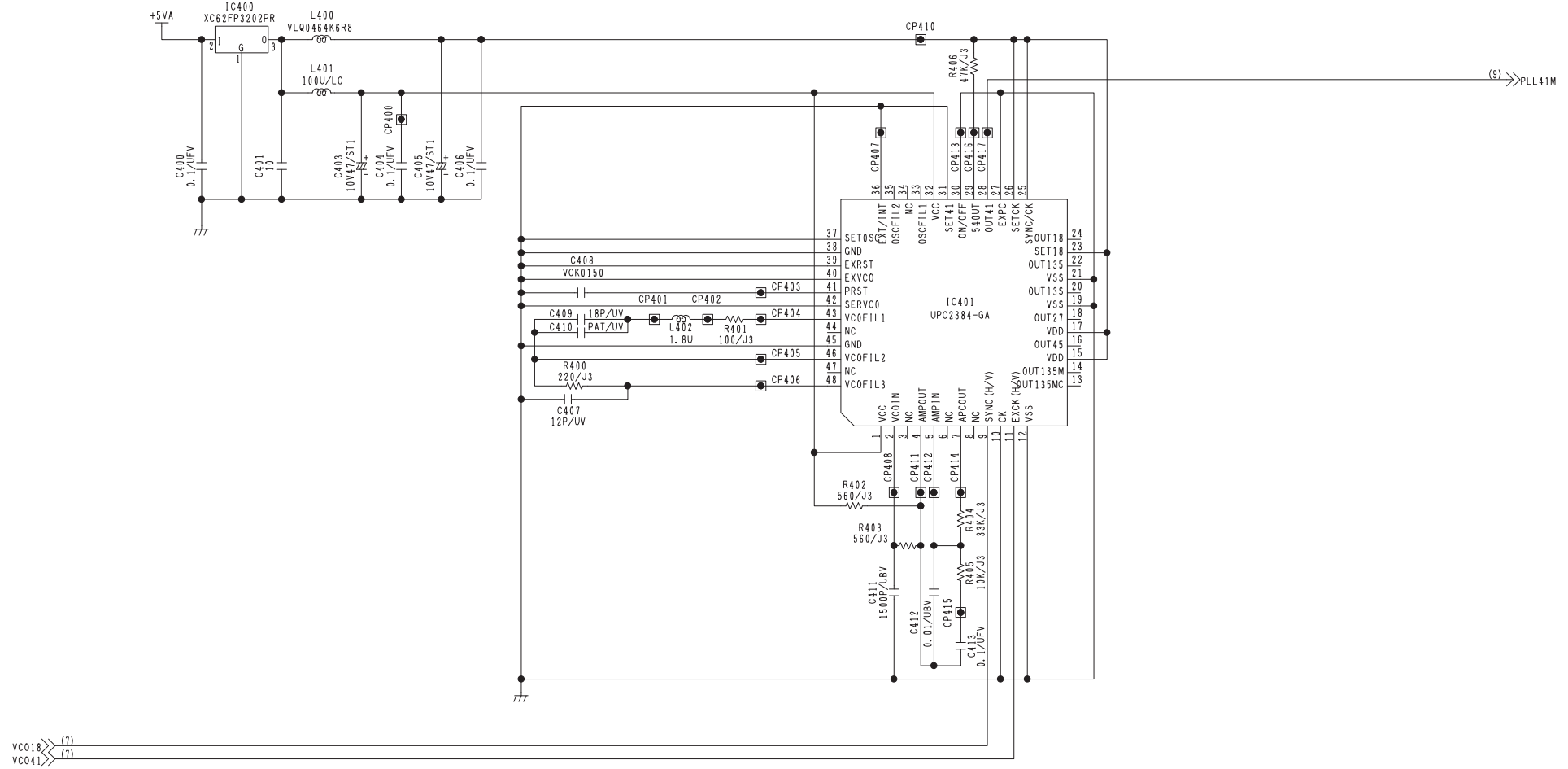
COMPONENT NAME	VIDEO MAIN (COMPB)	05/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (5/11)
		SCM076



Ref No. 300~349 Series

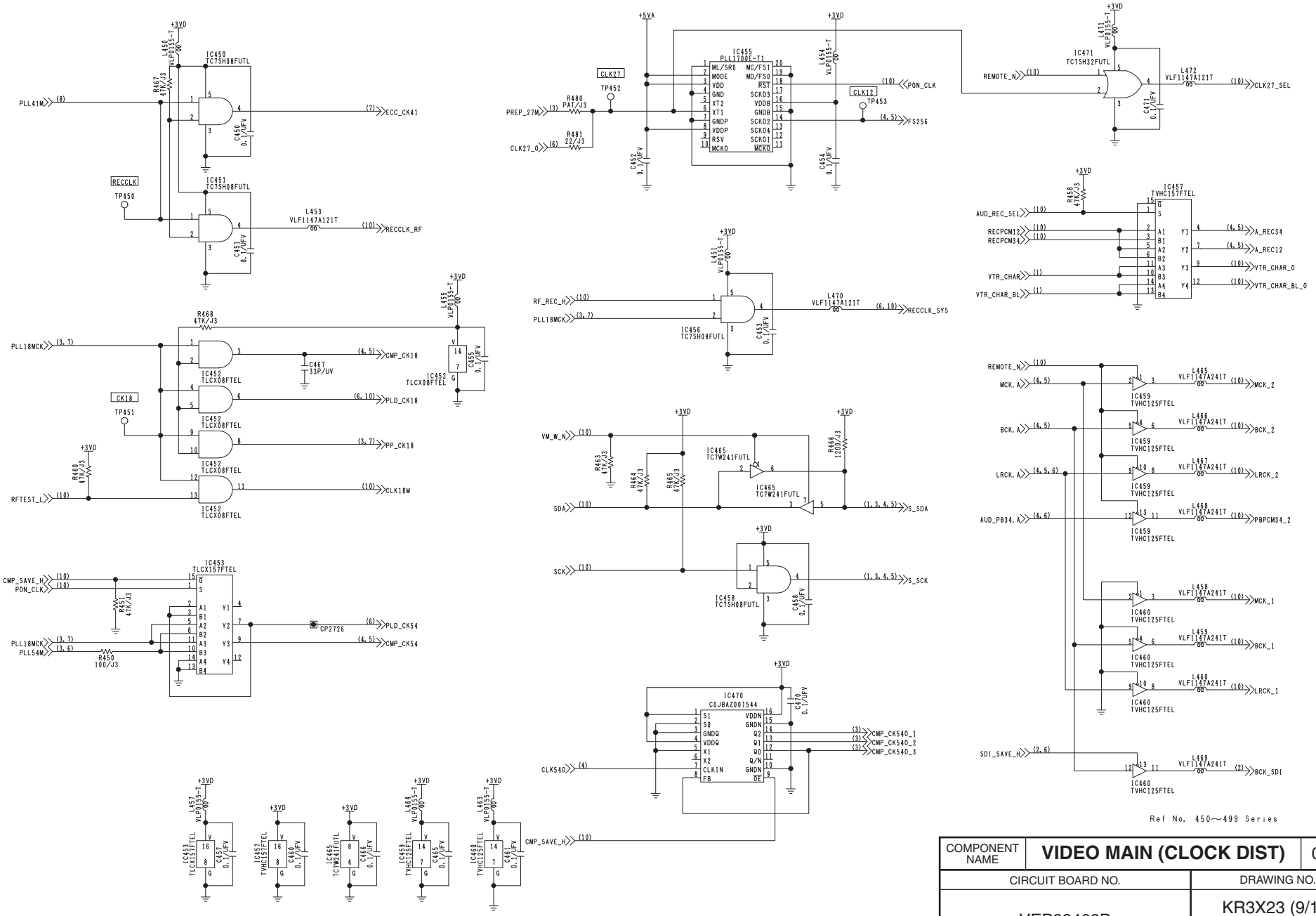
COMPONENT NAME	VIDEO MAIN (PLD)	06/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (6/11)-1
		SCM077


IC350
D4564163A10B
MN1F00804C
IC351
TP357
TP358
TP359
TP360
TP353
TP354
TP355
TP356
HID. C
SPA. C
HID. A
SPA. A
COMPONENT NAME
VIDEO MAIN (ECC)
07/11
CIRCUIT BOARD NO.
VEP83462B
DRAWING NO.
KR3X23 (7/11)
SCM078
Ref No. 350～399 Series

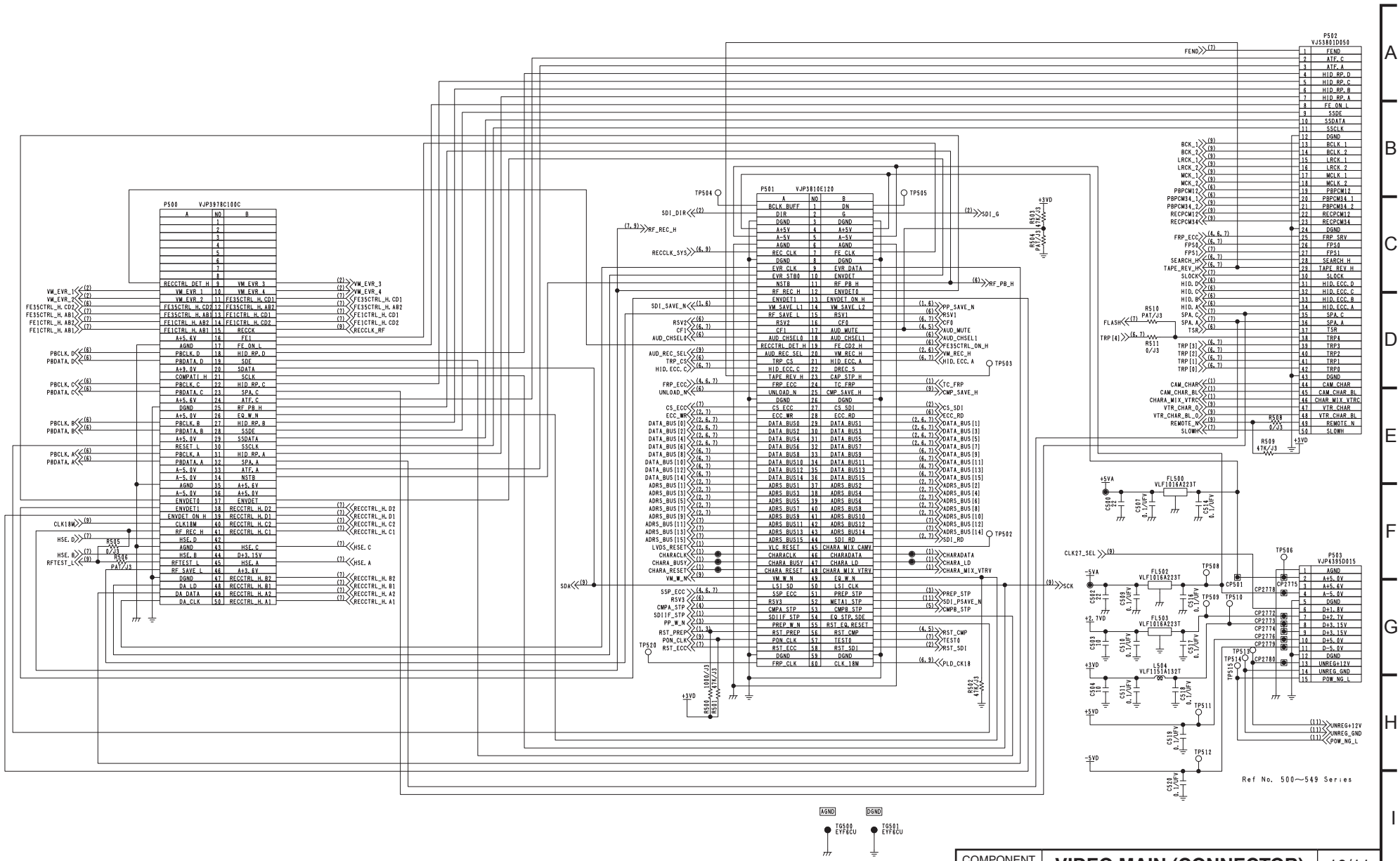


Ref No. 400～449 Series

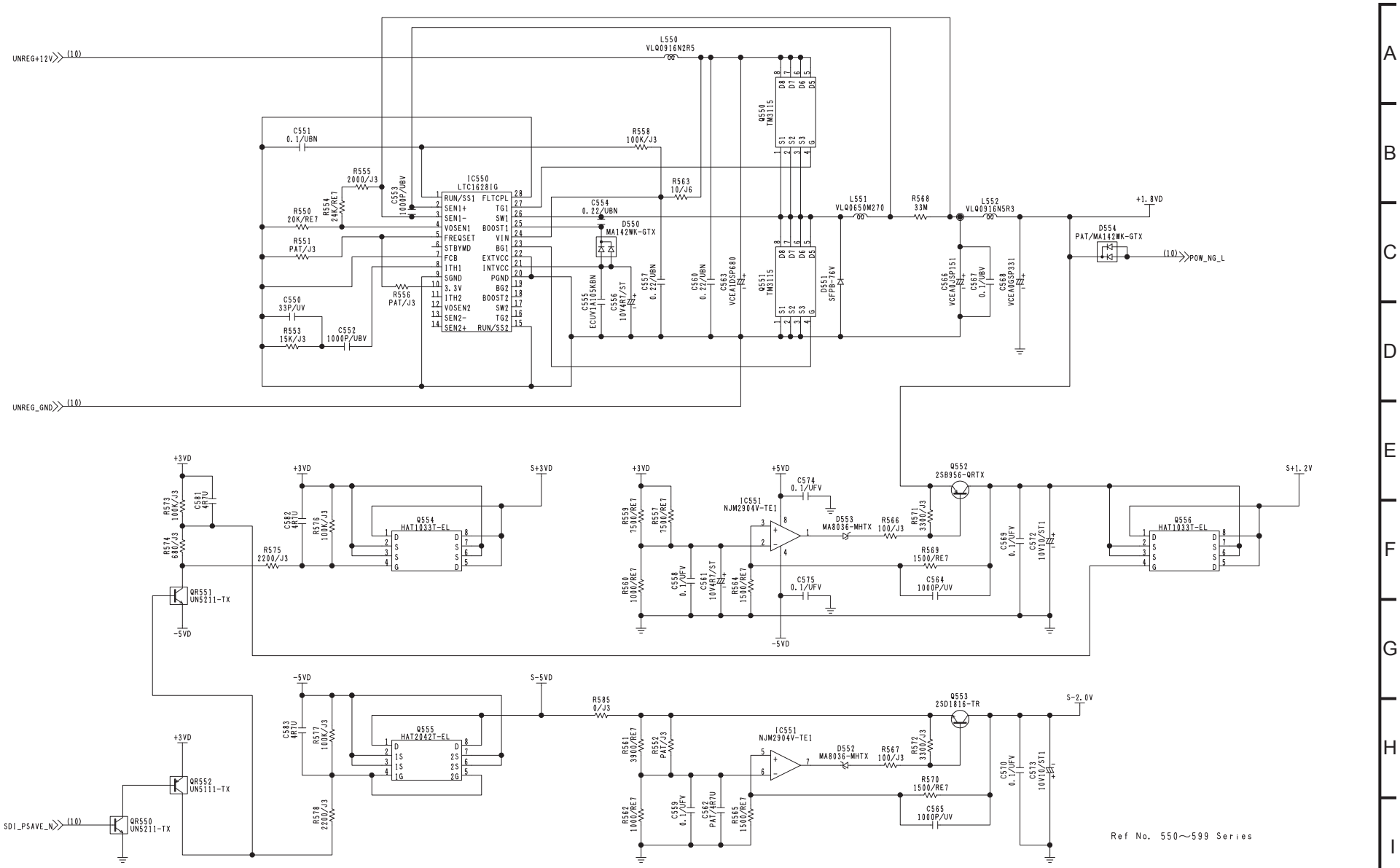
COMPONENT NAME	VIDEO MAIN (SYNC CLK)	08/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (8/11)
		SCM079



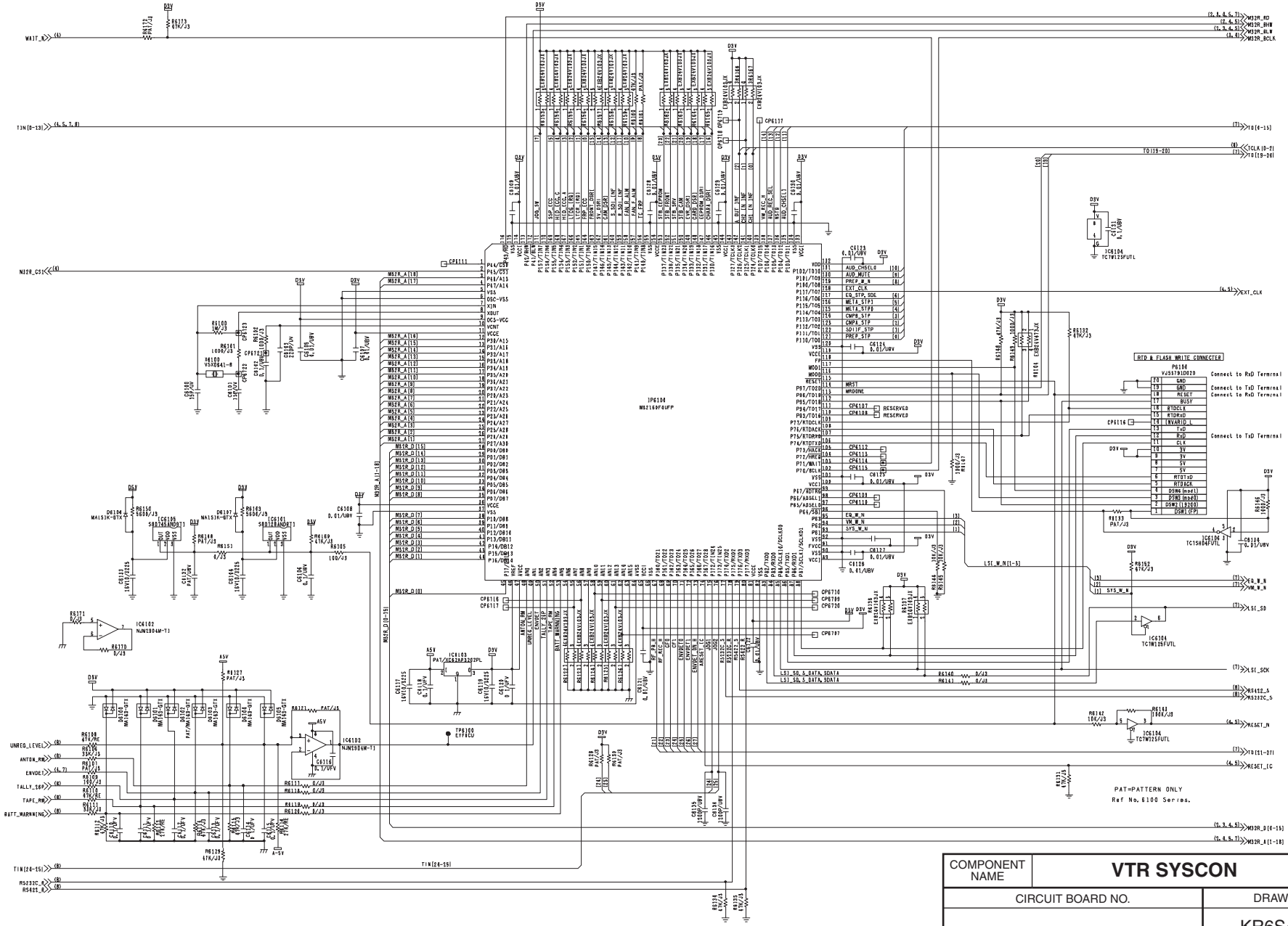
COMPONENT NAME	VIDEO MAIN (CLOCK DIST)	09/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (9/11)
		SCM080



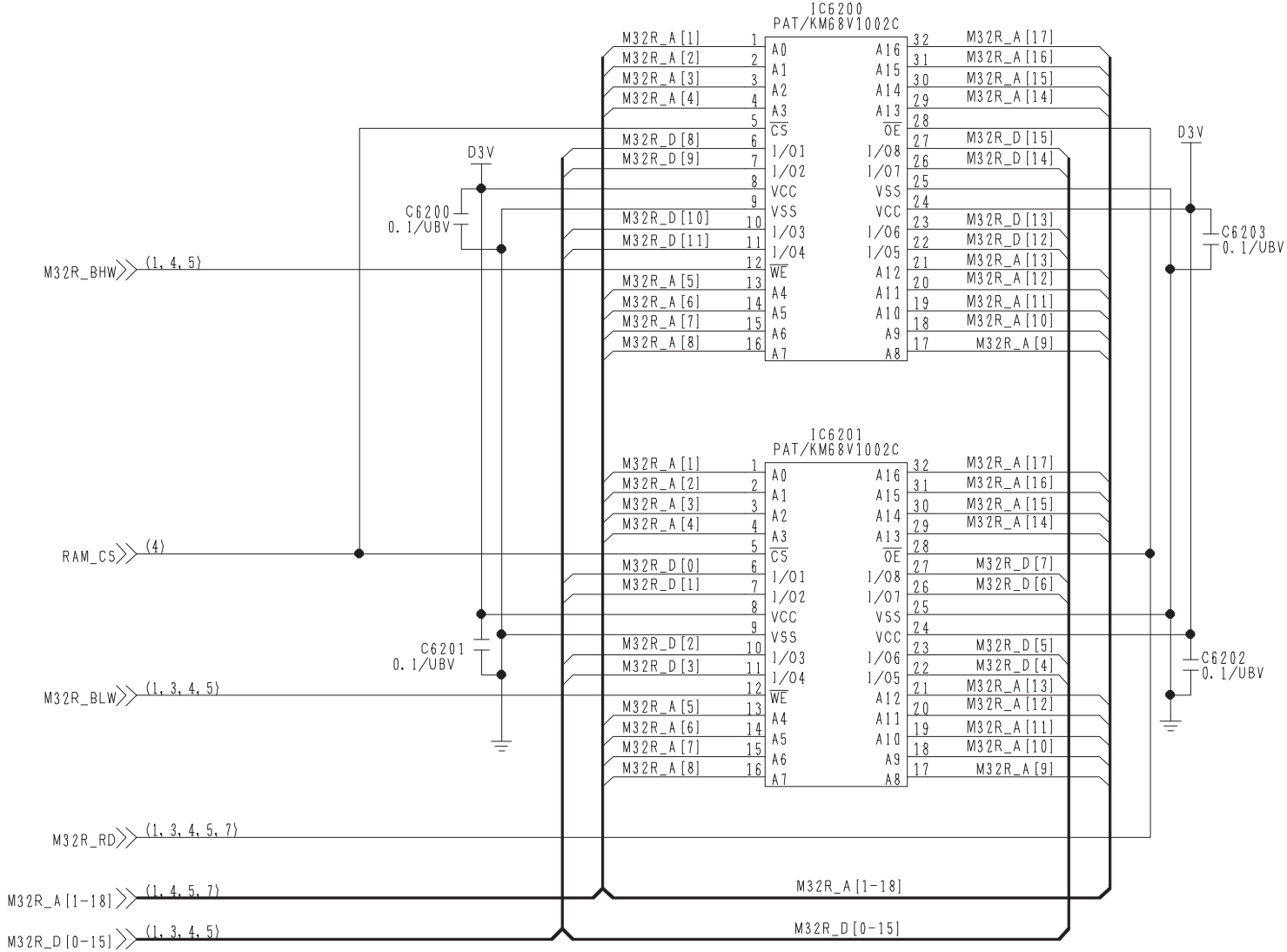
COMPONENT NAME	**VIDEO MAIN (CONNECTOR)** 10/11
CIRCUIT BOARD NO.	DRAWING NO.
VEP83462B	KR3X23 (10/11)
	SCM081



COMPONENT NAME	VIDEO MAIN (POWER)	11/11
CIRCUIT BOARD NO.		DRAWING NO.
VEP83462B		KR3X23 (11/11)
		SCM082

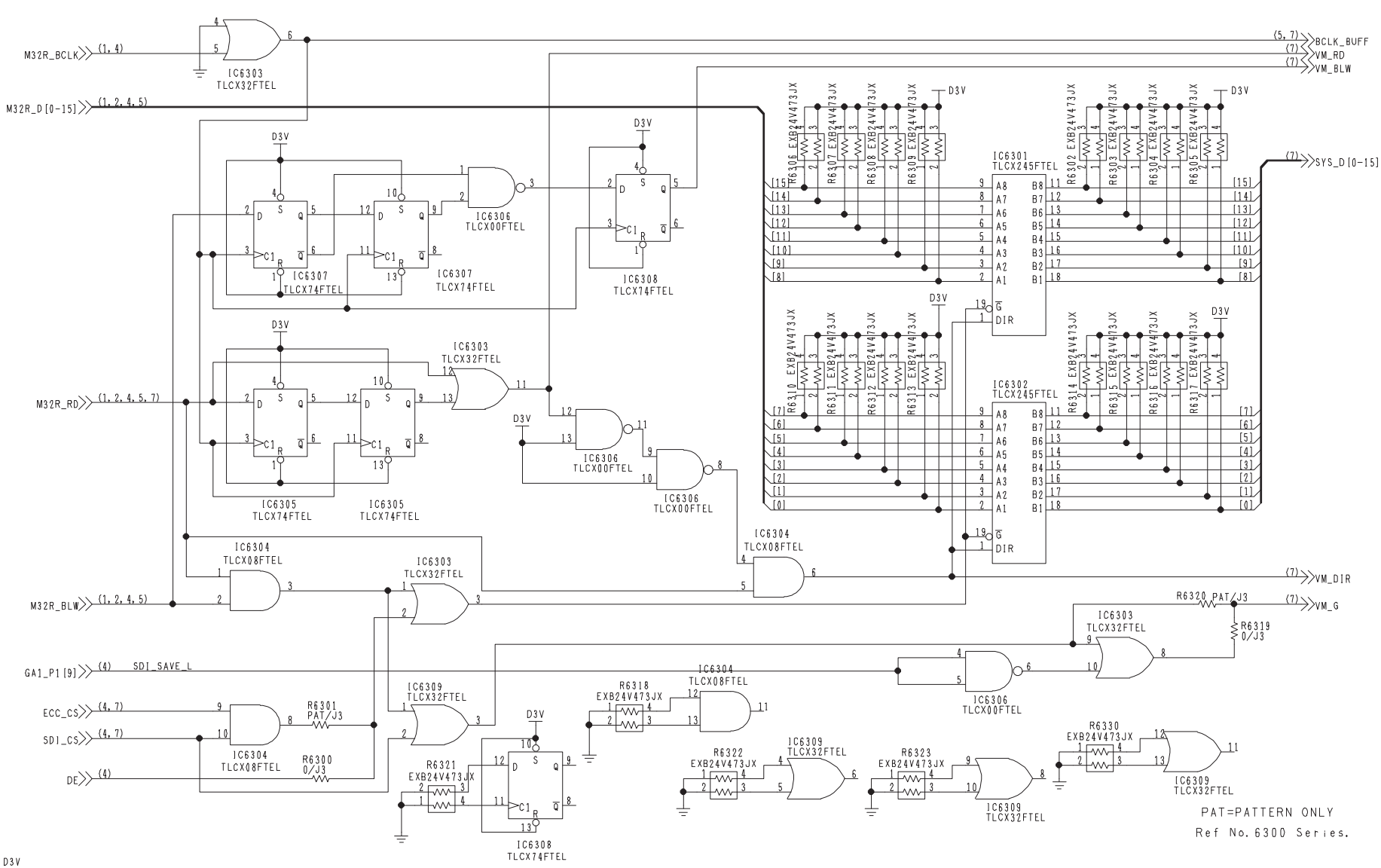


COMPONENT NAME	**VTR SYSCON**	01/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (1/8)
		SCM083

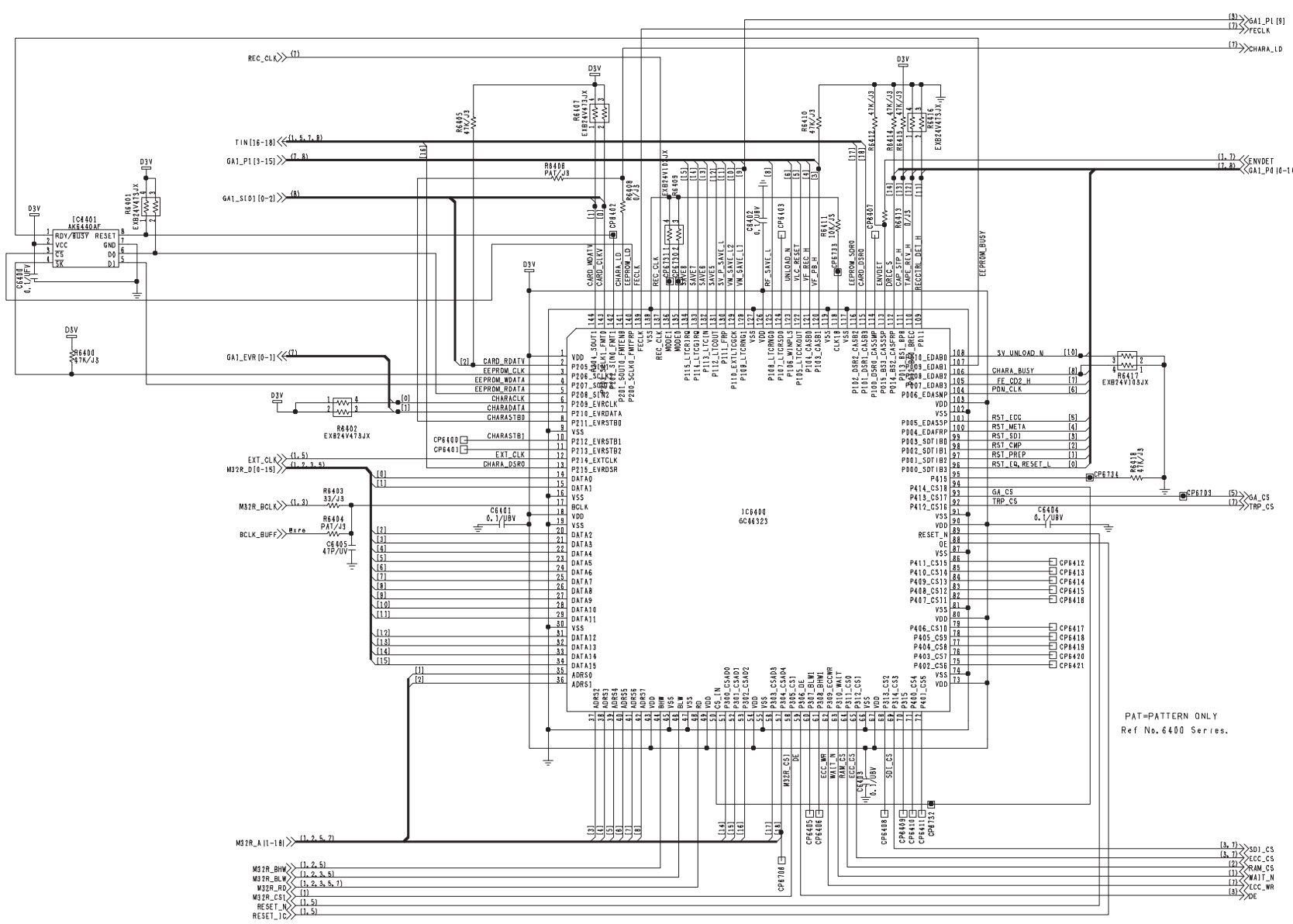


PAT=PATTERN ONLY
Ref No. 6200 Series.

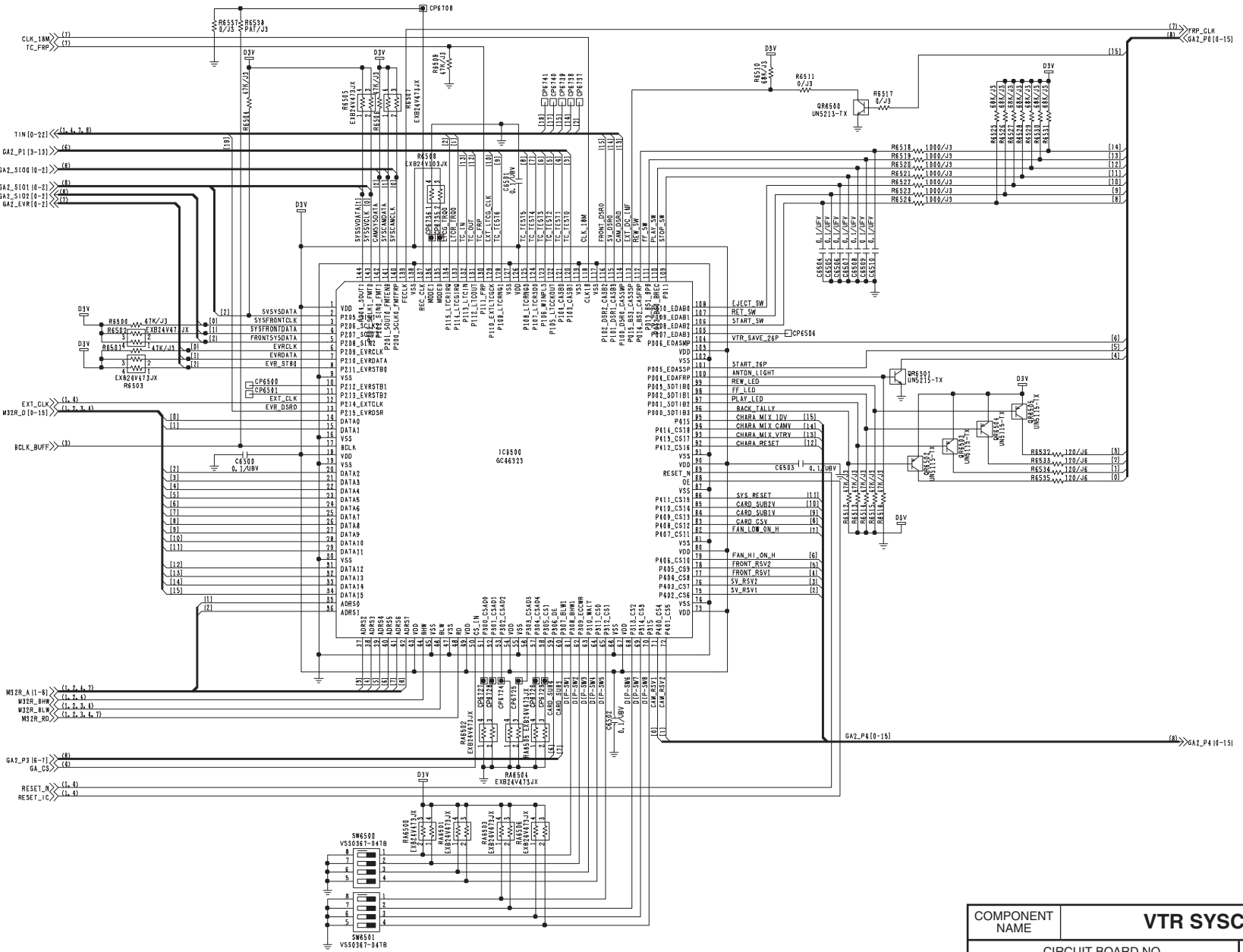
COMPONENT NAME	VTR SYSCON	02/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (2/8)
		SCM084



COMPONENT NAME	VTR SYSCON	03/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (3/8)
		SCM085

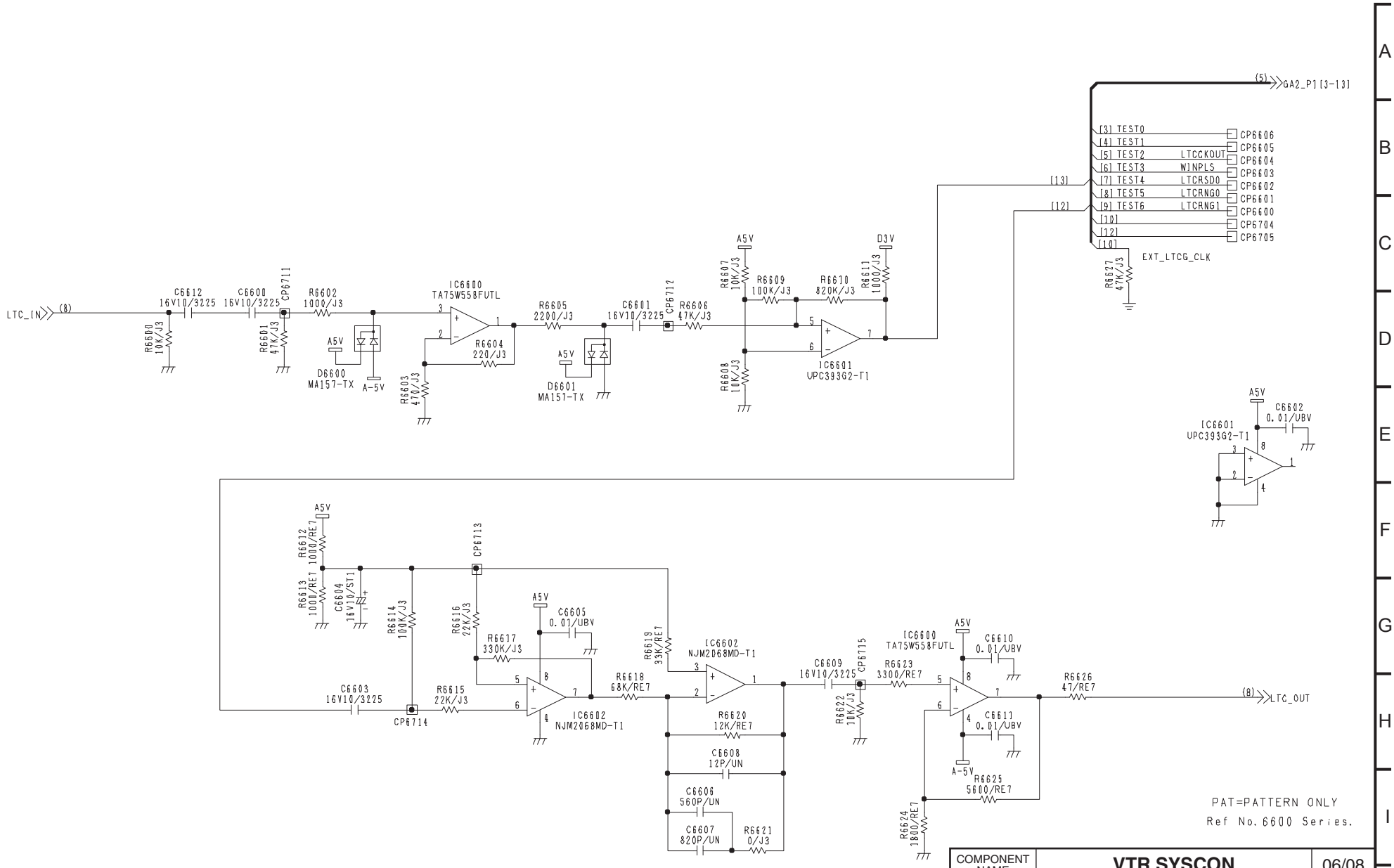


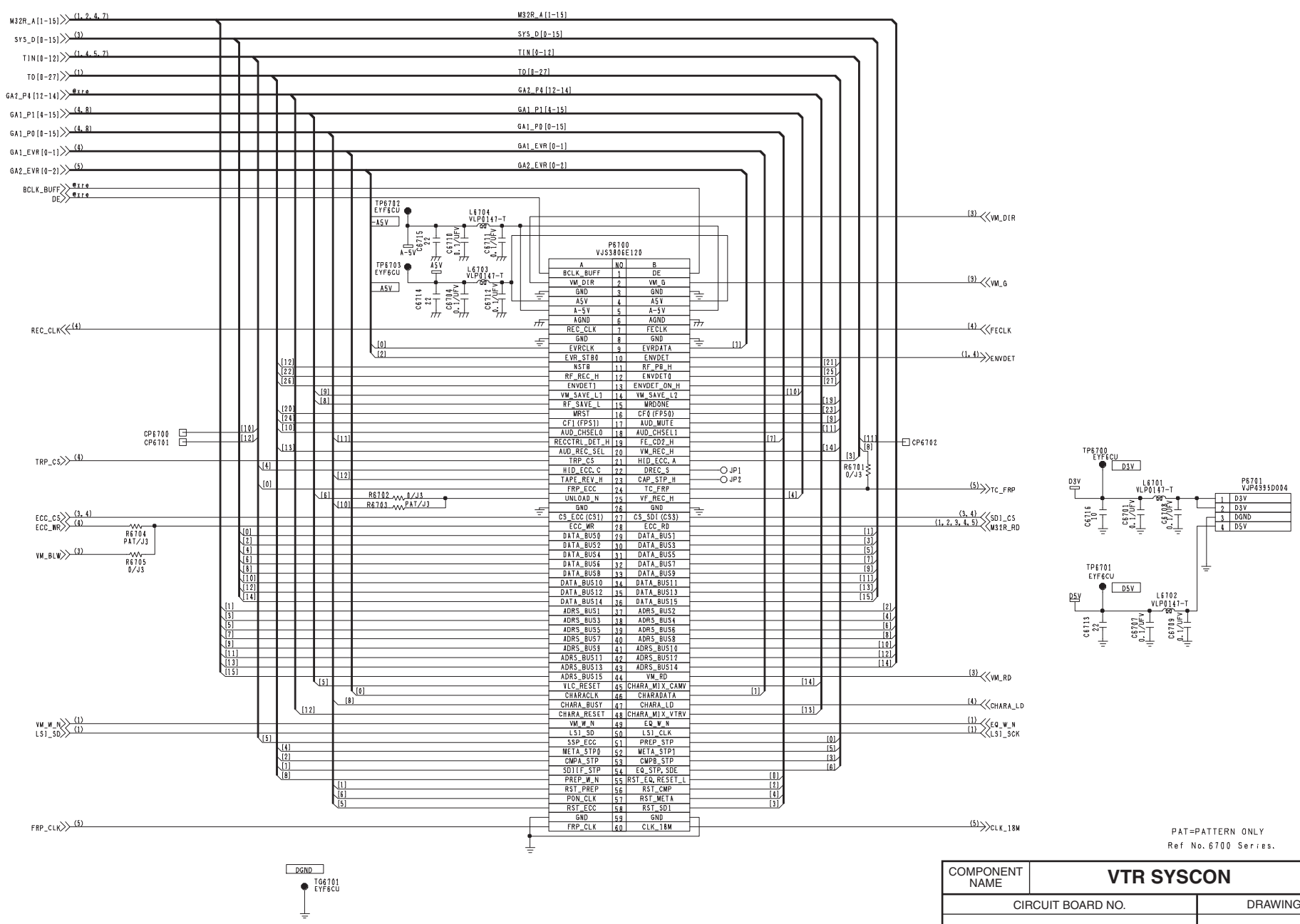
COMPONENT NAME	**VTR SYSCON**	04/08
CIRCUIT BOARD NO.	DRAWING NO.	
VEP86303B	KR6S44 (4/8)	
	SCM086	



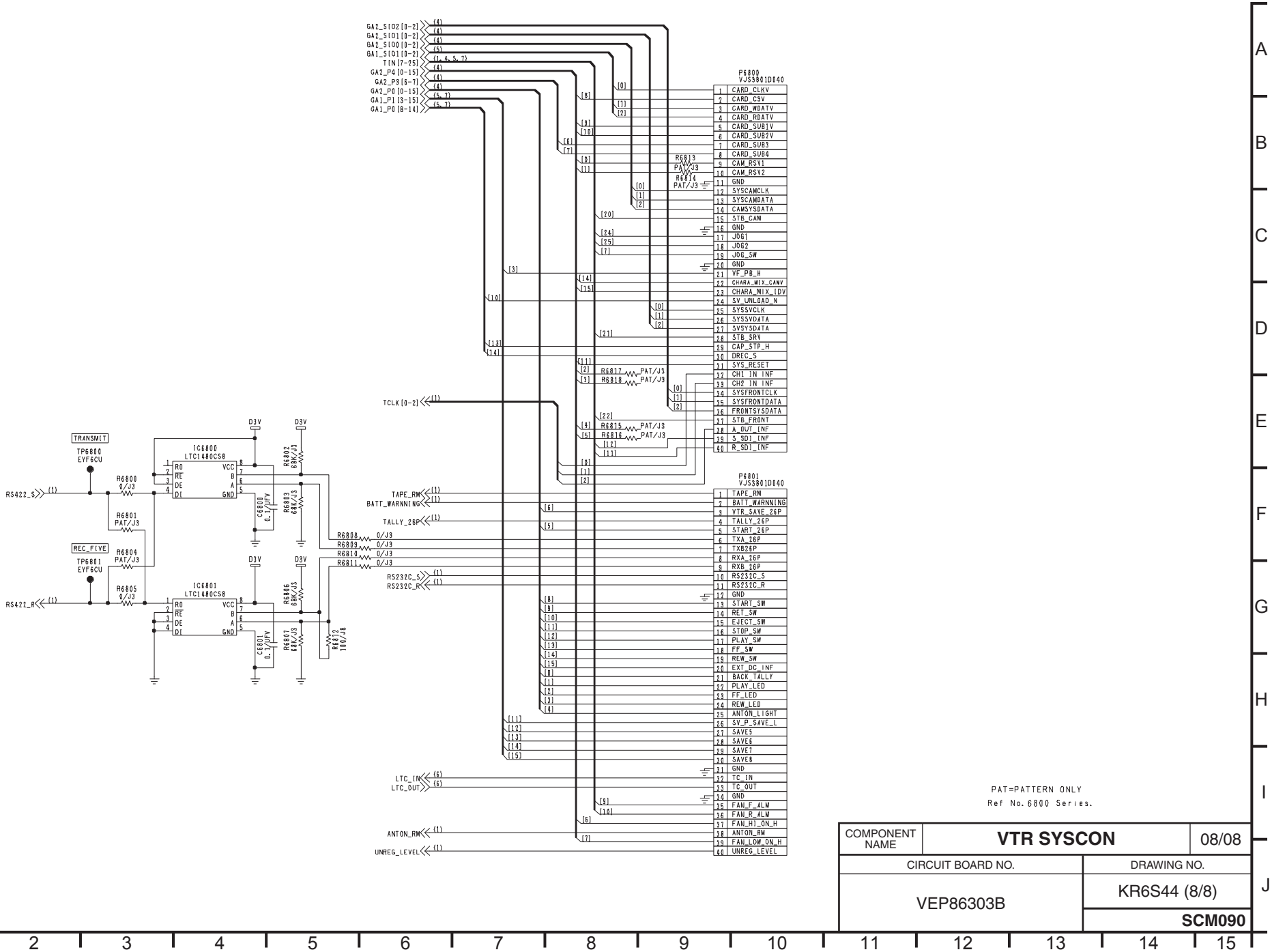
PAT=PATTERN ONLY
Ref No. 6500 Series.

COMPONENT NAME	VTR SYSCON	05/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (5/8)
		SCM087


LTC_IN
(8)
C6612 16V10/3225
C6600 16V10/3225
CP6711
R6602 1000/J3
R6600 10K/J3
R6601 47K/J3
A5V
D6600 MA157-TX
A-5V
IC6600 TA75W558FUTL
R6603 470/J3
R6604 220/J3
R6605 2200/J3
A5V
D6601 MA157-TX
C6601 16V10/3225
CP6712
R6606 47K/J3
A5V
R6607 10K/J3
R6609 100K/J3
R6610 820K/J3
D3V
R6611 1000/J3
R6608 10K/J3
IC6601 UPC393G2-T1
(5) GA2_P1 [3-13]
[3] TEST0
[4] TEST1
[5] TEST2 LTCCKOUT
[6] TEST3 W1NPLS
[7] TEST4 LTCRSD0
[8] TEST5 LTCRNG0
[9] TEST6 LTCRNG1
[10]
[12]
[10]
[13]
[12]
CP6606
CP6605
CP6604
CP6603
CP6602
CP6601
CP6600
CP6704
CP6705
EXT_LTCG_CLK
R6627 47K/J3
A5V
C6602 0.01/UBV
IC6601 UPC393G2-T1
A5V
R6612 1000/RE7
R6613 1000/RE7
C6604 16V10/ST1
R6614 100K/J3
CP6713
R6616 22K/J3
A5V
C6605 0.01/UBV
R6617 330K/J3
C6603 16V10/3225
CP6714
R6615 22K/J3
IC6602 NJM2068MD-T1
R6618 68K/RE7
R6619 33K/RE7
IC6602 NJM2068MD-T1
R6620 12K/RE7
C6608 12P/UN
C6606 560P/UN
C6607 820P/UN
R6621 0/J3
C6609 16V10/3225
CP6715
R6622 10K/J3
IC6600 TA75W558FUTL
A5V
C6610 0.01/UBV
R6623 3300/RE7
C6611 0.01/UBV
A-5V
R6625 5600/RE7
R6624 1800/RE7
R6626 47/RE7
(8) LTC_OUT
PAT=PATTERN ONLY
Ref No. 6600 Series.
COMPONENT NAME
VTR SYSCON
06/08
CIRCUIT BOARD NO.
VEP86303B
DRAWING NO.
KR6S44 (6/8)
SCM088
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

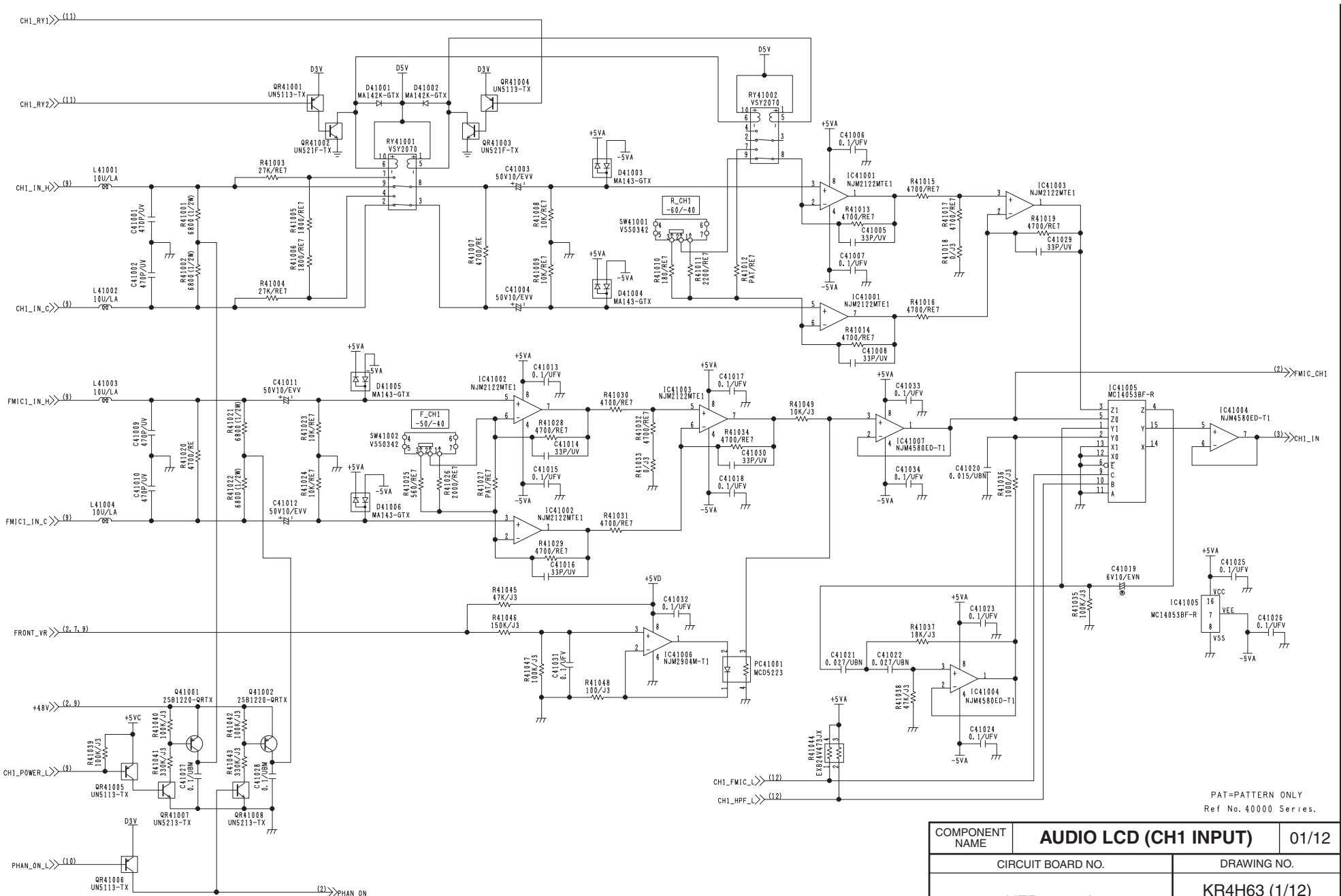


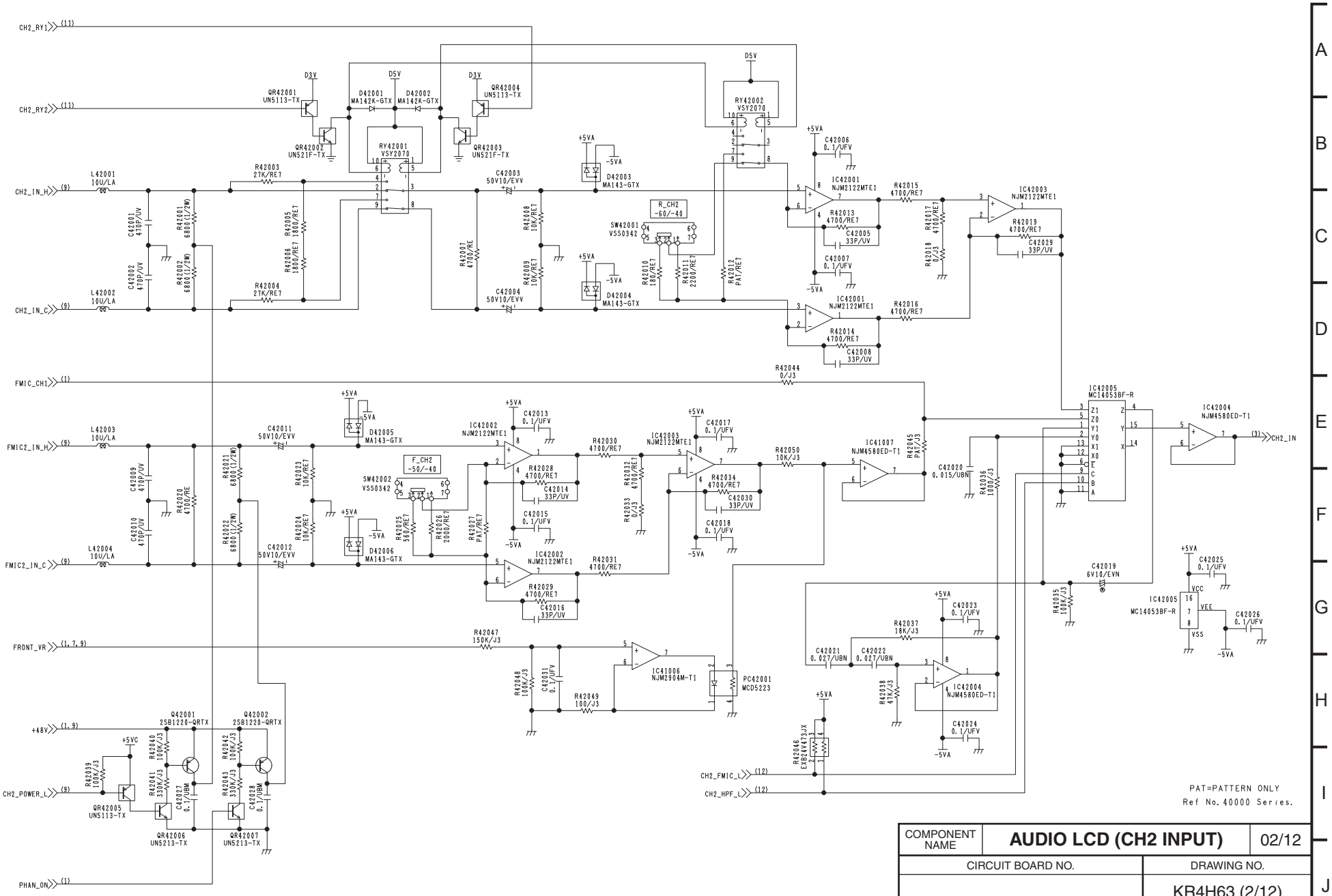
COMPONENT NAME	VTR SYSCON	07/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (7/8)
		SCM089



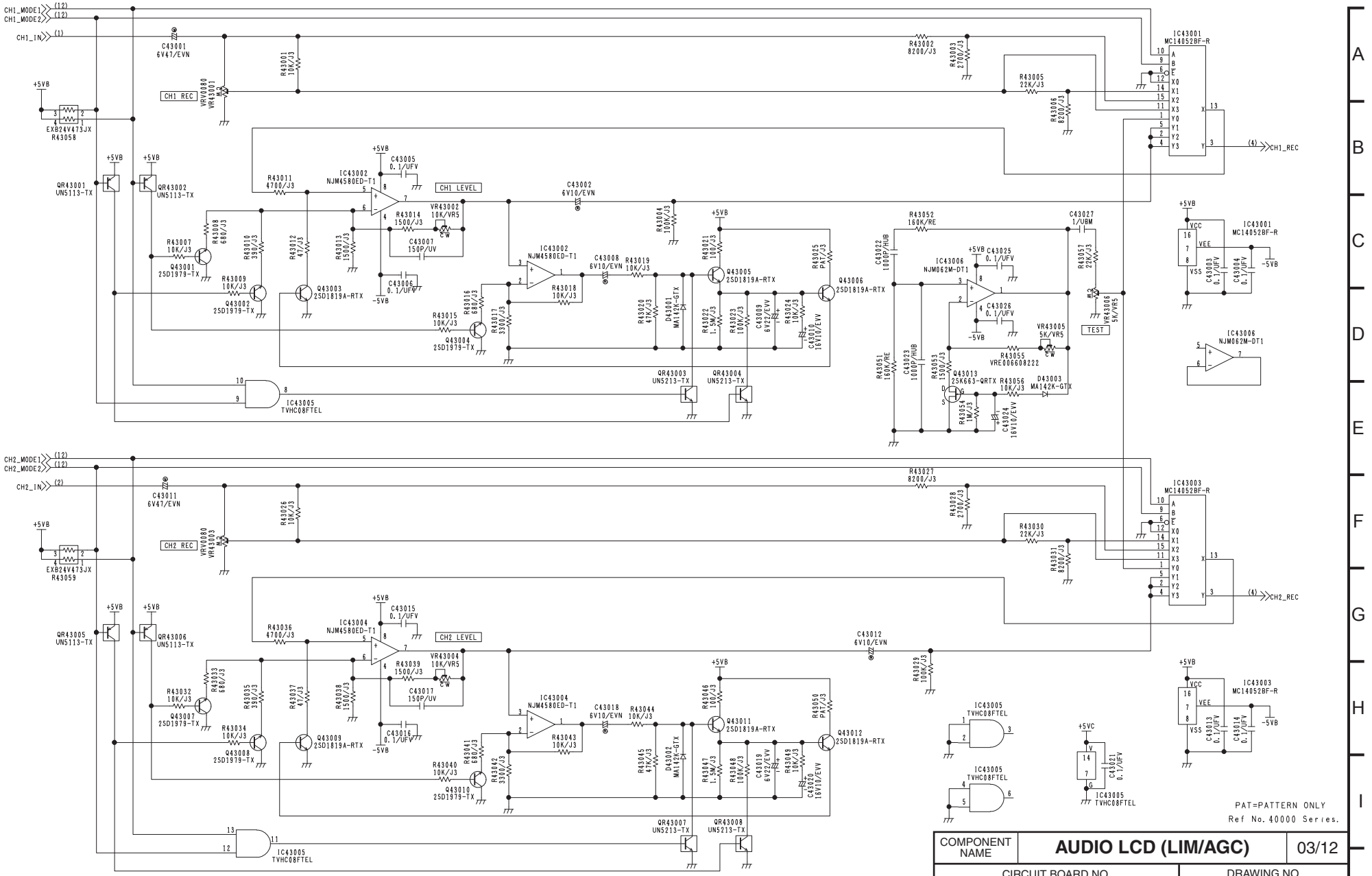
PAT=PATTERN ONLY
Ref No. 6800 Series.

COMPONENT NAME	VTR SYSCON	08/08
CIRCUIT BOARD NO.		DRAWING NO.
VEP86303B		KR6S44 (8/8)
		SCM090

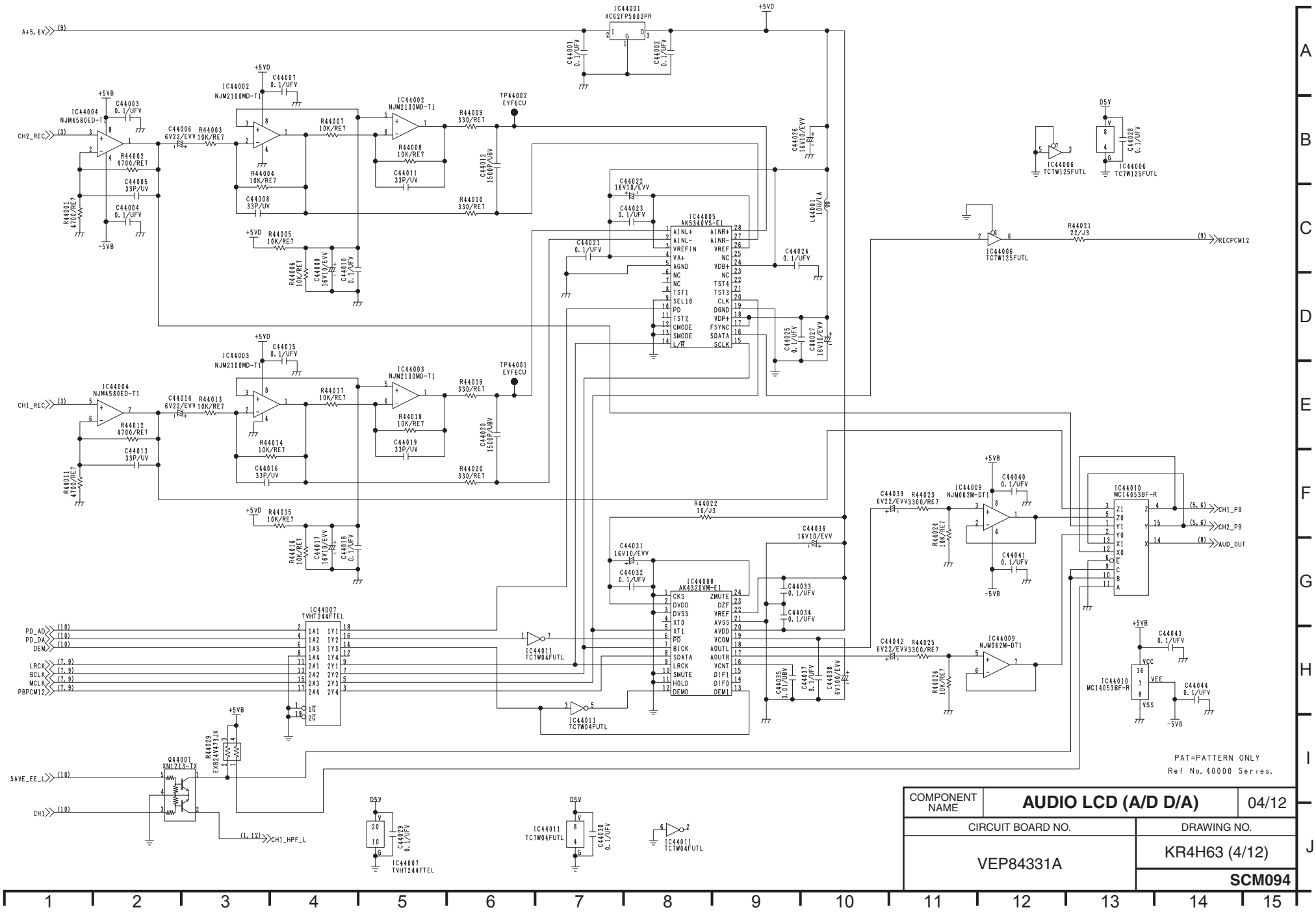

CH1_RY1
CH1_RY2
CH1_IN_H
CH1_IN_C
FMIC1_IN_H
FMIC1_IN_C
FRONT_VR
+48V
CH1_POWER_L
PHAN_ON_L
PHAN_ON
FMIC_CH1
CH1_IN
CH1_FMIC_L
CH1_HPF_L
PAT=PATTERN ONLY
Ref No. 40000 Series.
COMPONENT NAME
AUDIO LCD (CH1 INPUT)
01/12
CIRCUIT BOARD NO.
VEP84331A
DRAWING NO.
KR4H63 (1/12)
SCM091

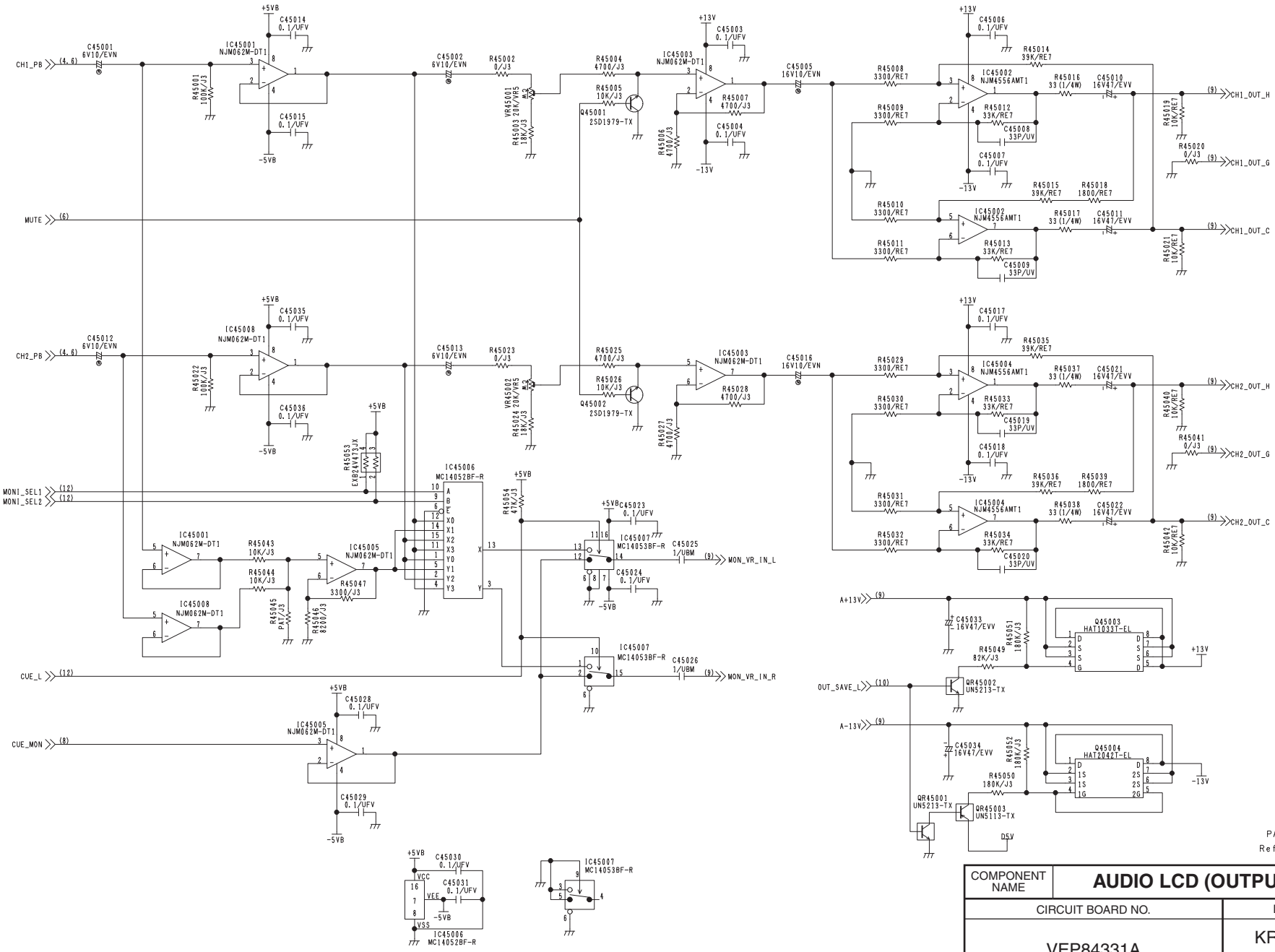


COMPONENT NAME	AUDIO LCD (CH2 INPUT)	02/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (2/12)
		SCM092

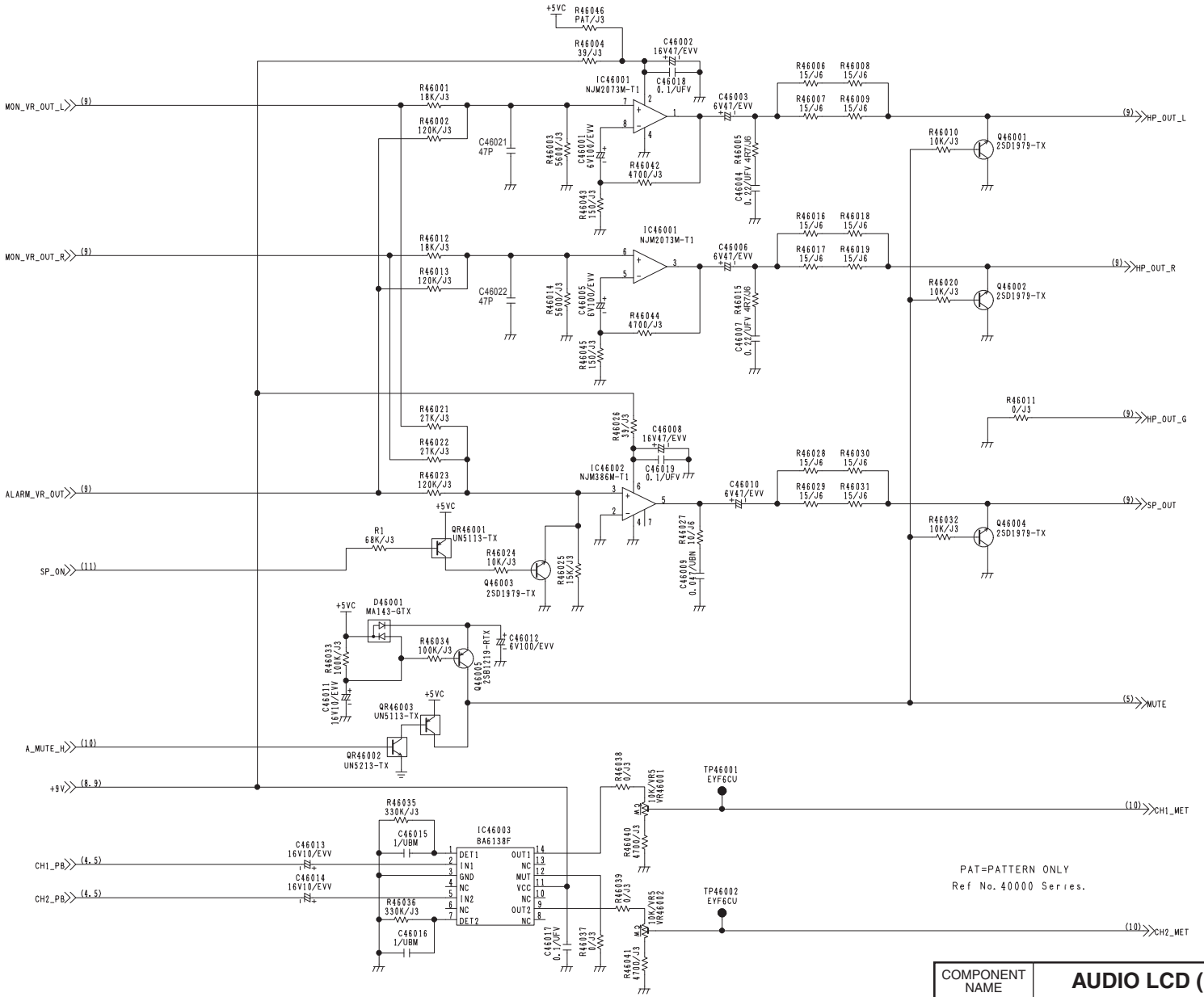


COMPONENT NAME	AUDIO LCD (LIM/AGC)	03/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (3/12)
		SCM093

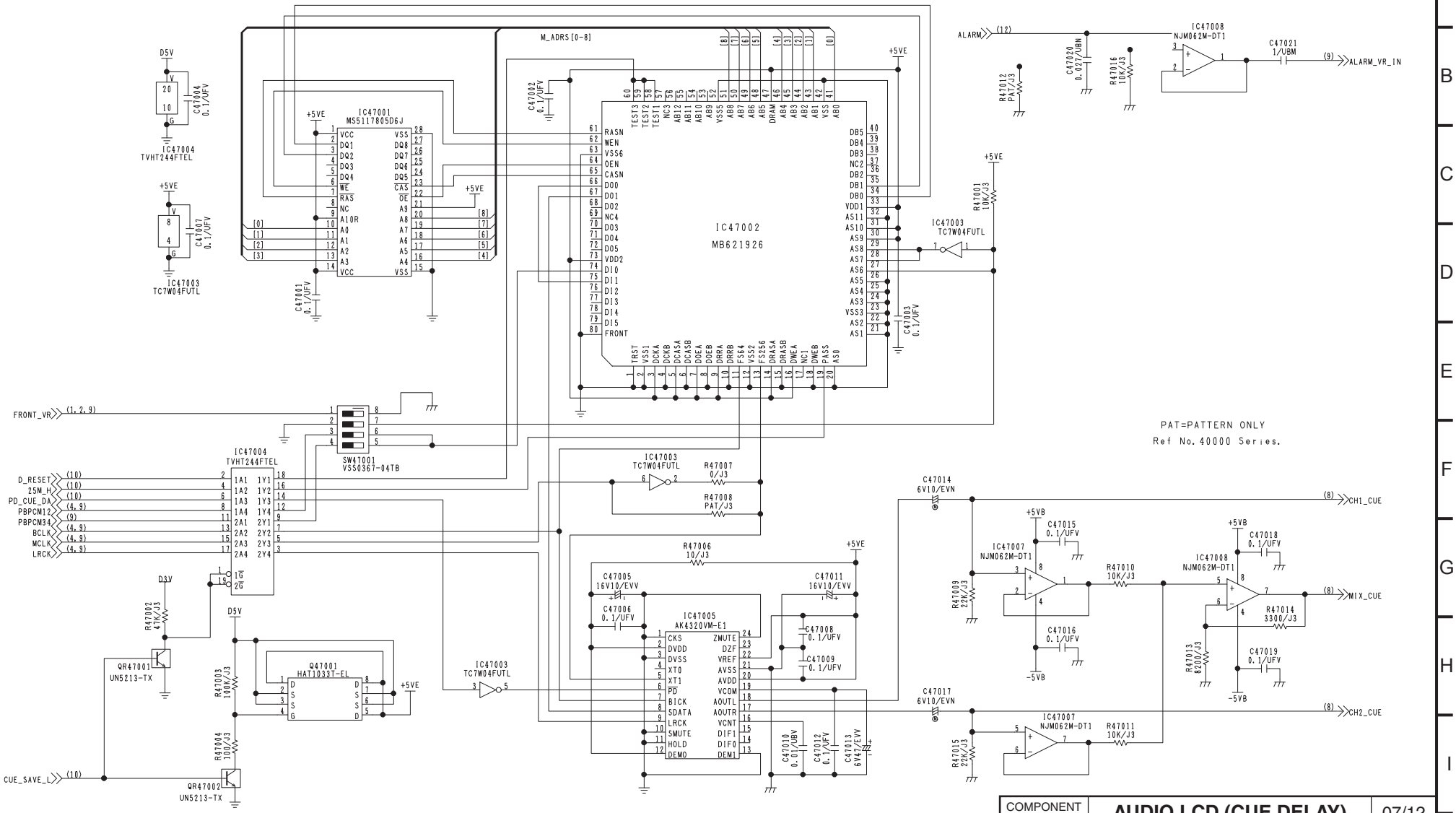

A+5.6V
+5VD
-5VB
+5VB
D5V
CH2_REC
CH1_REC
IC44001 XC62FP5002PR
IC44002 NJM2100MD-T1
IC44003 NJM2100MD-T1
IC44004 NJM4580ED-T1
IC44005 AK5340VS-E1
IC44008 AK4320VM-E1
IC44007 TVHT244FTEL
IC44009 NJM062M-DT1
IC44010 MC14053BF-R
IC44011 TC7W04FUTL
IC44006 TC7W125FUTL
Q44001 XN1213-TX
TP44002 EYF6CU
TP44001 EYF6CU
R44021 22/J3
R44022 10/J3
RECPCM12
CH1_PB
CH2_PB
AUD_OUT
PD_AD
PD_DA
DEM
LRCK
BCLK
MCLK
PBPCM12
SAVE_EE_L
CH1
CH1_HPF_L
PAT=PATTERN ONLY
Ref No. 40000 Series.
COMPONENT NAME
AUDIO LCD (A/D D/A)
04/12
CIRCUIT BOARD NO.
VEP84331A
DRAWING NO.
KR4H63 (4/12)
SCM094



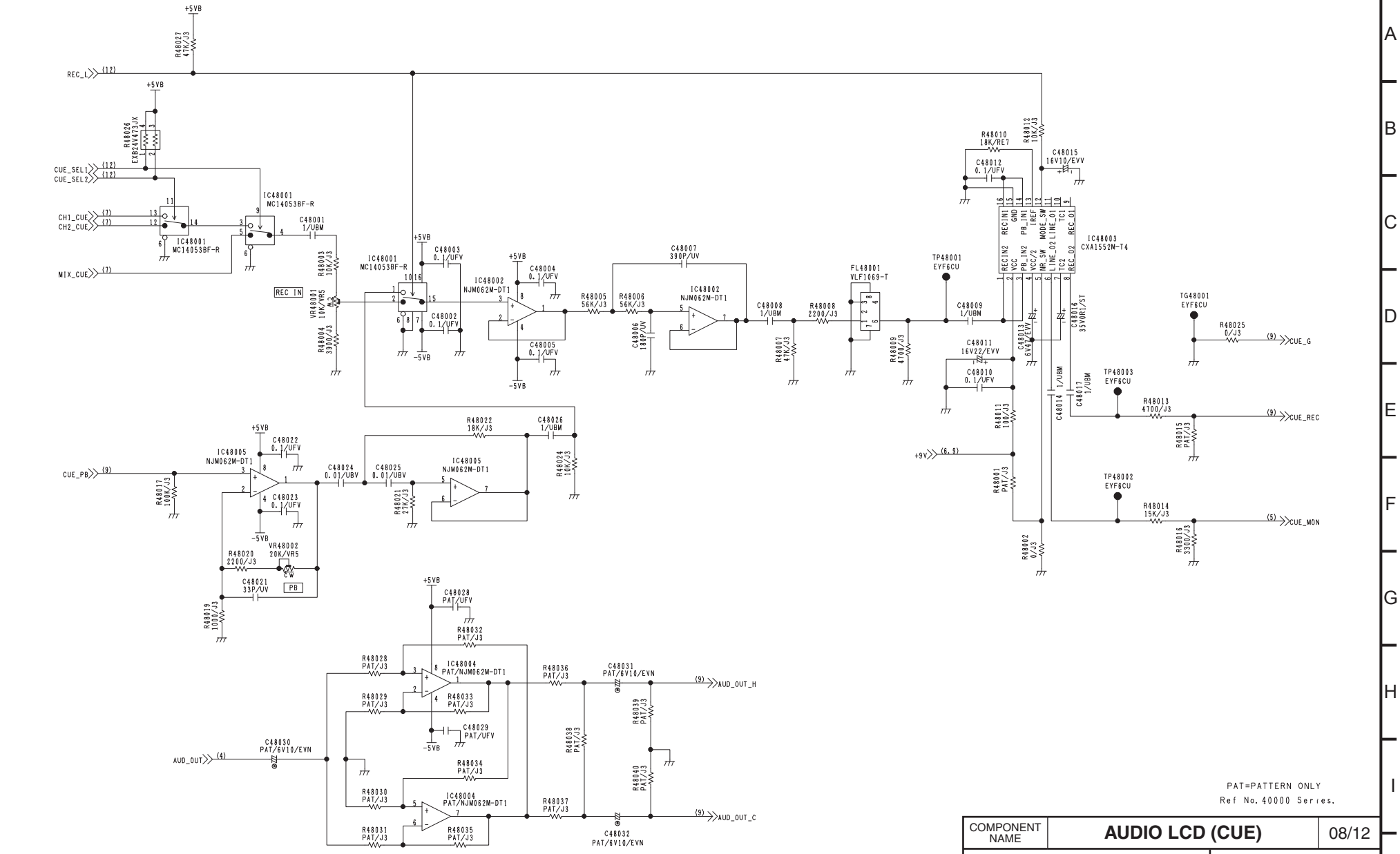
COMPONENT NAME	AUDIO LCD (OUTPUT)	05/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (5/12)
		SCM095



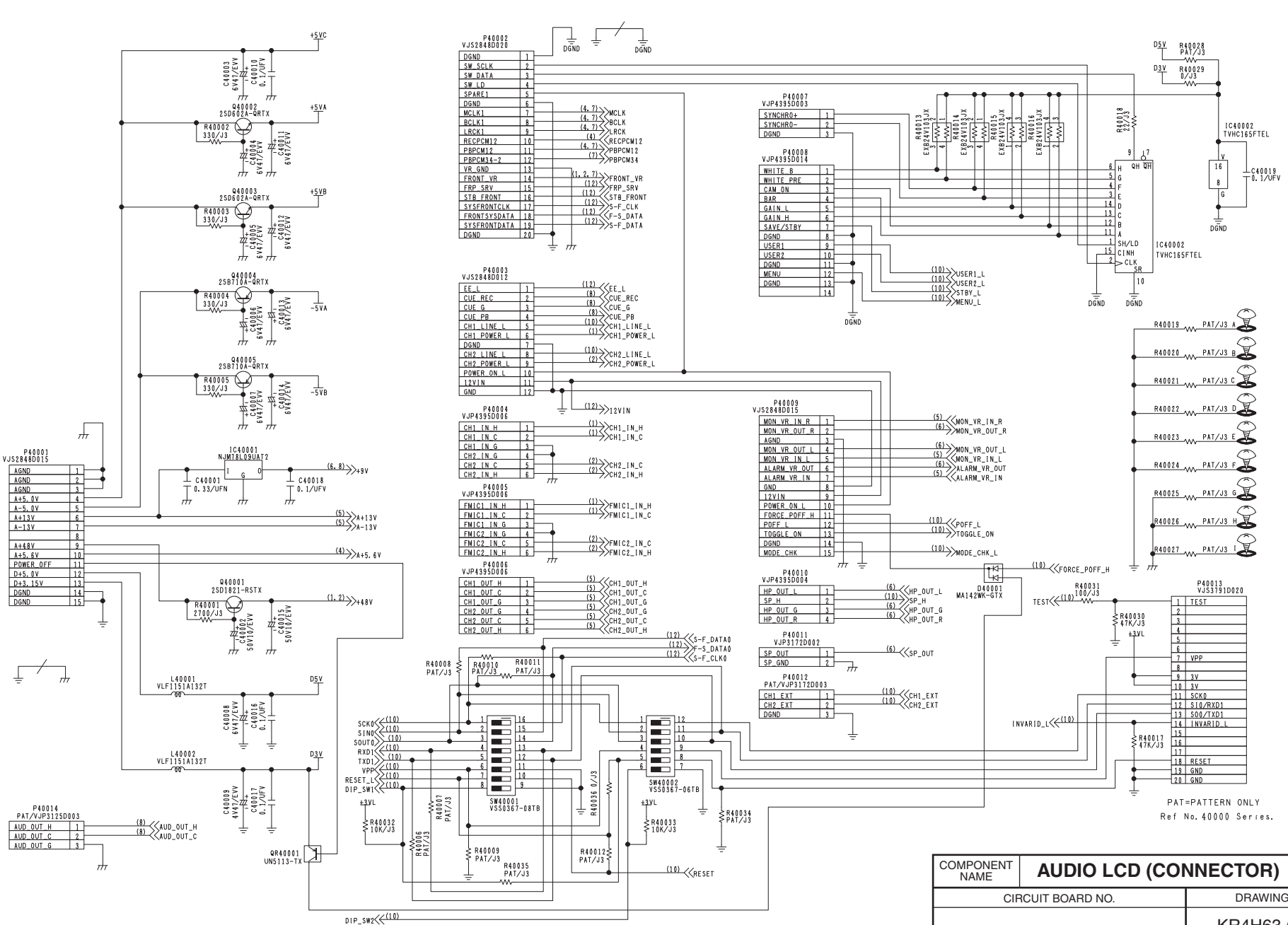
COMPONENT NAME	AUDIO LCD (MONITOR)	06/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (6/12)
		SCM096

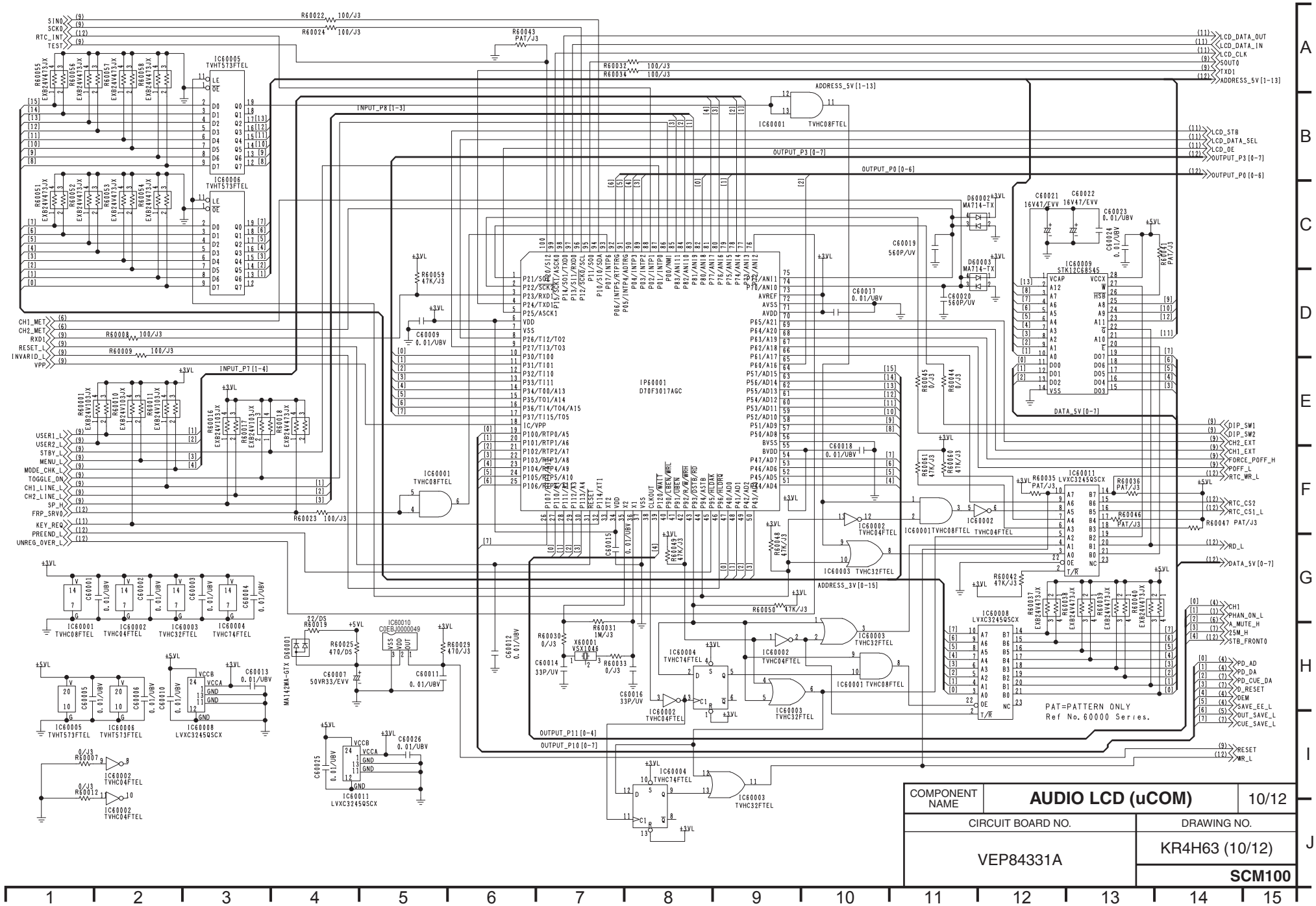


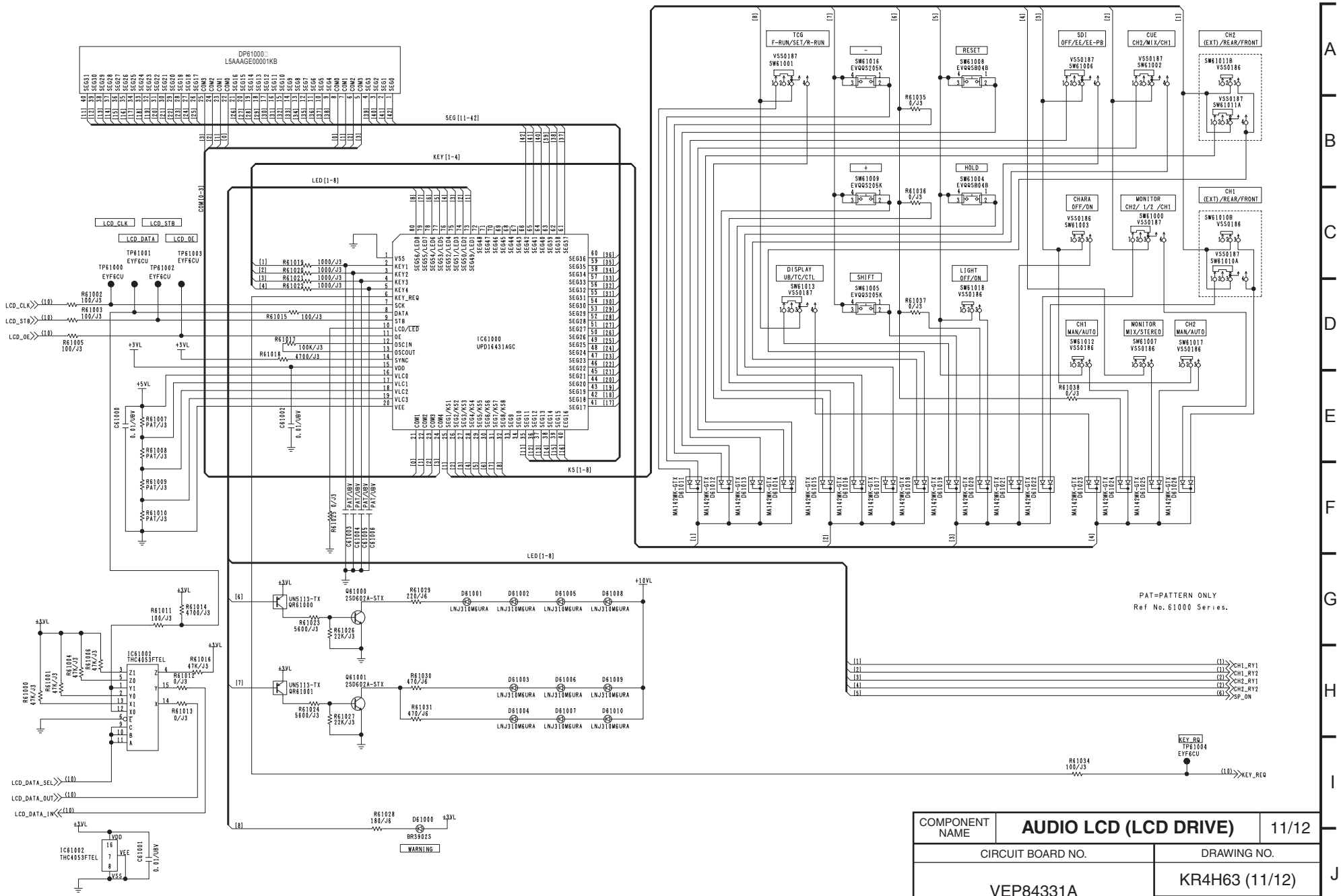
COMPONENT NAME	AUDIO LCD (CUE DELAY)	07/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (7/12)
		SCM097



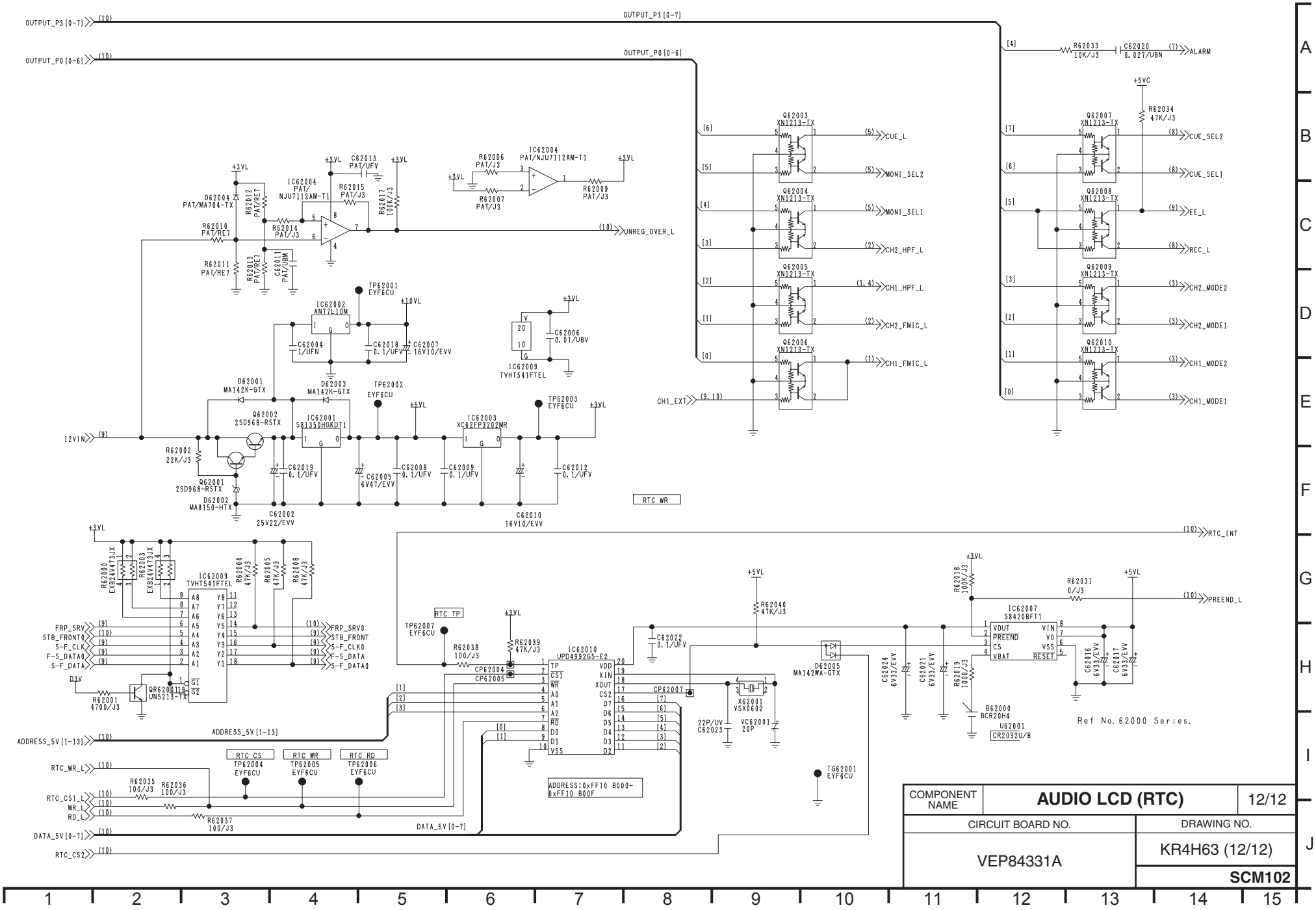
COMPONENT NAME	AUDIO LCD (CUE)	08/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (8/12)
		SCM098

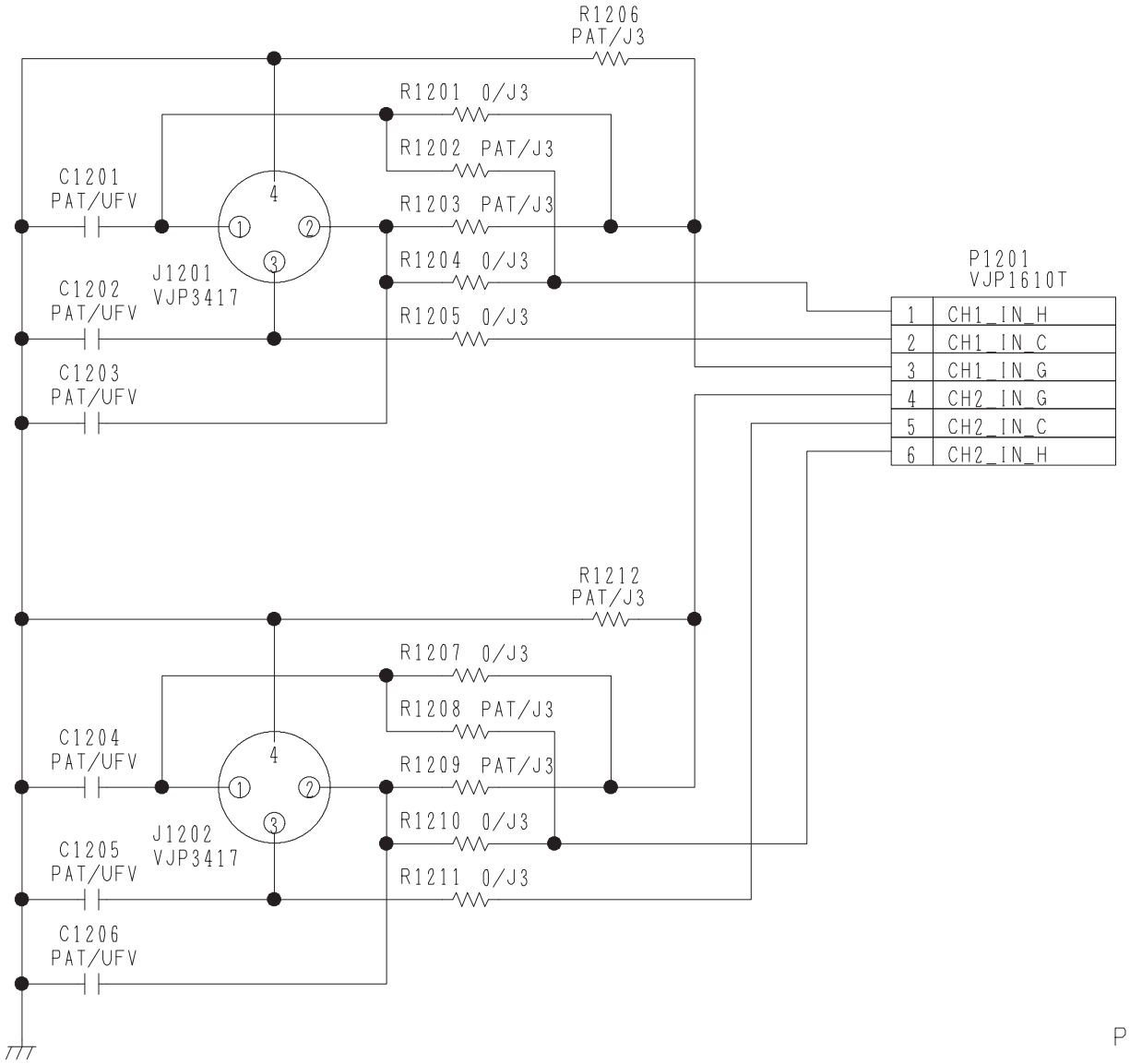

P40001 VJS2848D015
P40002 VJS2848D020
P40003 VJS2848D012
P40004 VJP4395D006
P40005 VJP4395D006
P40006 VJP4395D006
P40007 VJP4395D003
P40008 VJP4395D014
P40009 VJS2848D015
P40010 VJP4395D004
P40011 VJP3172D002
P40012 PAT/VJP3172D003
P40013 VJS3791D020
P40014 PAT/VJP3125D003
IC40001 NJM78L09UAT2
IC40002 TVHC165FTEL
SW40001 VSS0367-08TB
SW40002 VSS0367-06TB
D40001 MA142WK-GTX
QR40001 UN5113-TX
Q40001 2SD1821-RSTX
Q40002 2SD602A-QRTX
Q40003 2SD602A-QRTX
Q40004 2SB710A-QRTX
Q40005 2SB710A-QRTX
L40001 VLF1151AI32T
L40002 VLF1151AI32T
+5VC
+5VA
+5VB
-5VA
-5VB
+9V
A+13V
A-13V
A+5.6V
+48V
D5V
D3V
PAT=PATTERN ONLY
Ref No.40000 Series.
COMPONENT NAME
AUDIO LCD (CONNECTOR)
09/12
CIRCUIT BOARD NO.
VEP84331A
DRAWING NO.
KR4H63 (9/12)
SCM099


IP60001
D70F3017AGC
IC60001
TVHC08FTEL
IC60002
TVHC04FTEL
IC60003
TVHC32FTEL
IC60004
TVHC74FTEL
IC60005
TVHT573FTEL
IC60006
TVHT573FTEL
IC60008
LVXC3245QSCX
IC60009
STK12C68545
IC60010
C0EBJ0000049
IC60011
LVXC3245QSCX
X60001
VSX1046
MA142WA-GTX
D60001
D60002
MA714-TX
D60003
MA714-TX
PAT=PATTERN ONLY
Ref No. 60000 Series.
COMPONENT NAME
AUDIO LCD (uCOM)
10/12
CIRCUIT BOARD NO.
VEP84331A
DRAWING NO.
KR4H63 (10/12)
SCM100



COMPONENT NAME	**AUDIO LCD (LCD DRIVE)**	11/12
CIRCUIT BOARD NO.		DRAWING NO.
VEP84331A		KR4H63 (11/12)
		SCM101


OUTPUT_P3 [0-7]
OUTPUT_P0 [0-6]
UNREG_OVER_L
CUE_L
MONI_SEL2
MONI_SEL1
CH2_HPF_L
CH1_HPF_L
CH2_FMIC_L
CH1_FMIC_L
CH1_EXT
ALARM
CUE_SEL2
CUE_SEL1
EE_L
REC_L
CH2_MODE2
CH2_MODE1
CH1_MODE2
CH1_MODE1
12VIN
RTC_WR
RTC_INT
PREEND_L
FRP_SRV
STB_FRONT
S-F_CLK
S-F_DATA
ADDRESS_5V [1-13]
RTC_WR_L
RTC_CS1_L
WR_L
RD_L
DATA_5V [0-7]
RTC_CS2
RTC_CS
RTC_RD
DATA_5V [0-7]
ADDRESS:0xFF10 B000-
0xFF10 B00F
Ref No. 62000 Series.
COMPONENT NAME
AUDIO LCD (RTC)
12/12
CIRCUIT BOARD NO.
VEP84331A
DRAWING NO.
KR4H63 (12/12)
SCM102

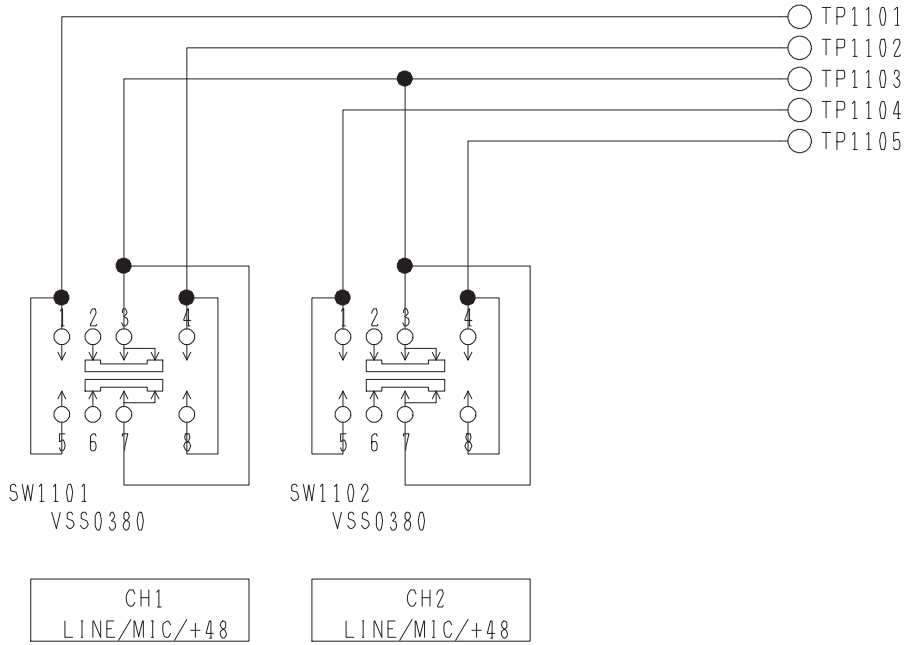


PAT=PATTERN ONLY

COMPONENT NAME	REAR JACK	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B13B		KR0M57 (1/1)
		SCM103

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

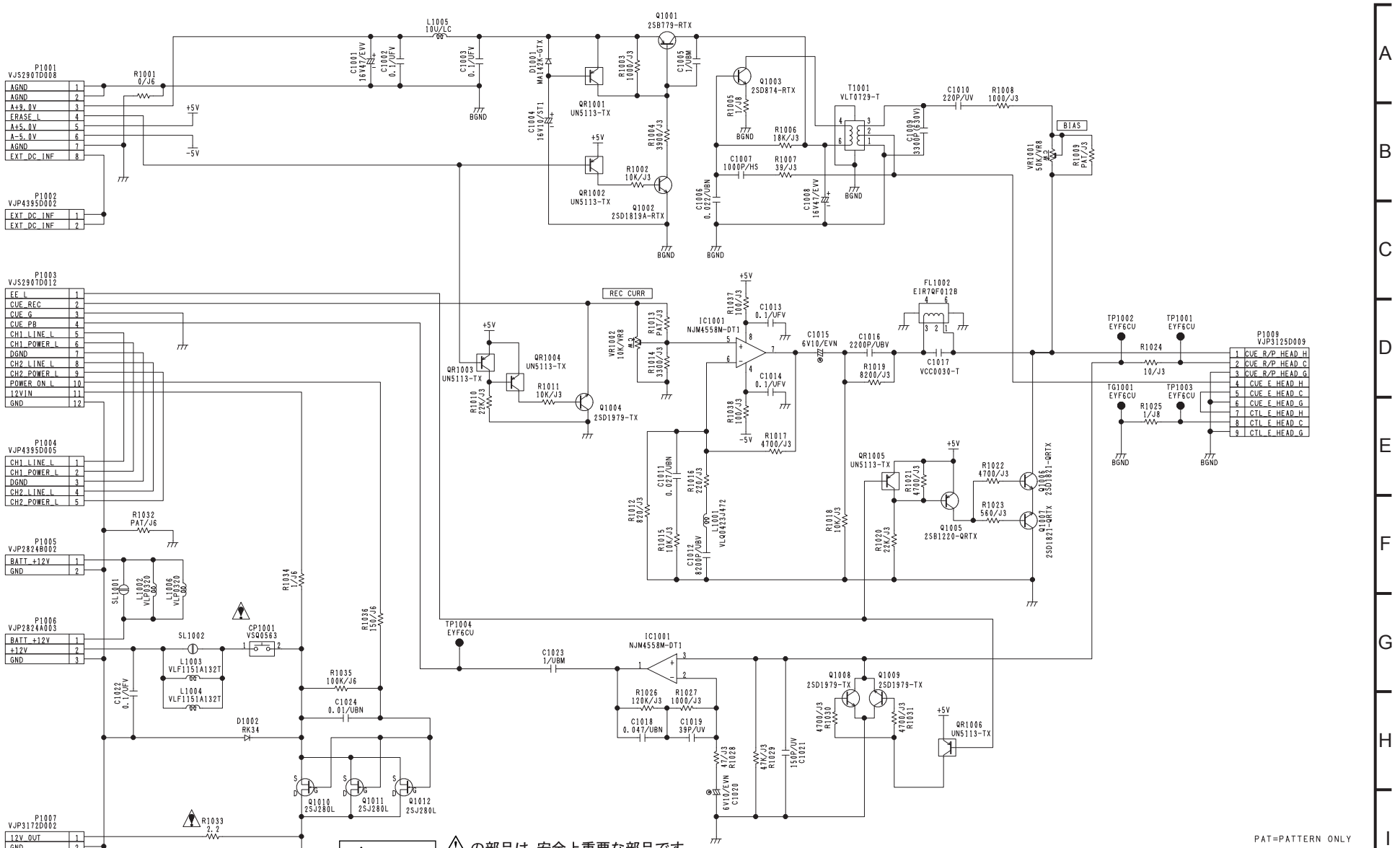


PAT=PATTERN ONLY

COMPONENT NAME	REAR SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B45A		KR0N42 (1/1)
		SCM104

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



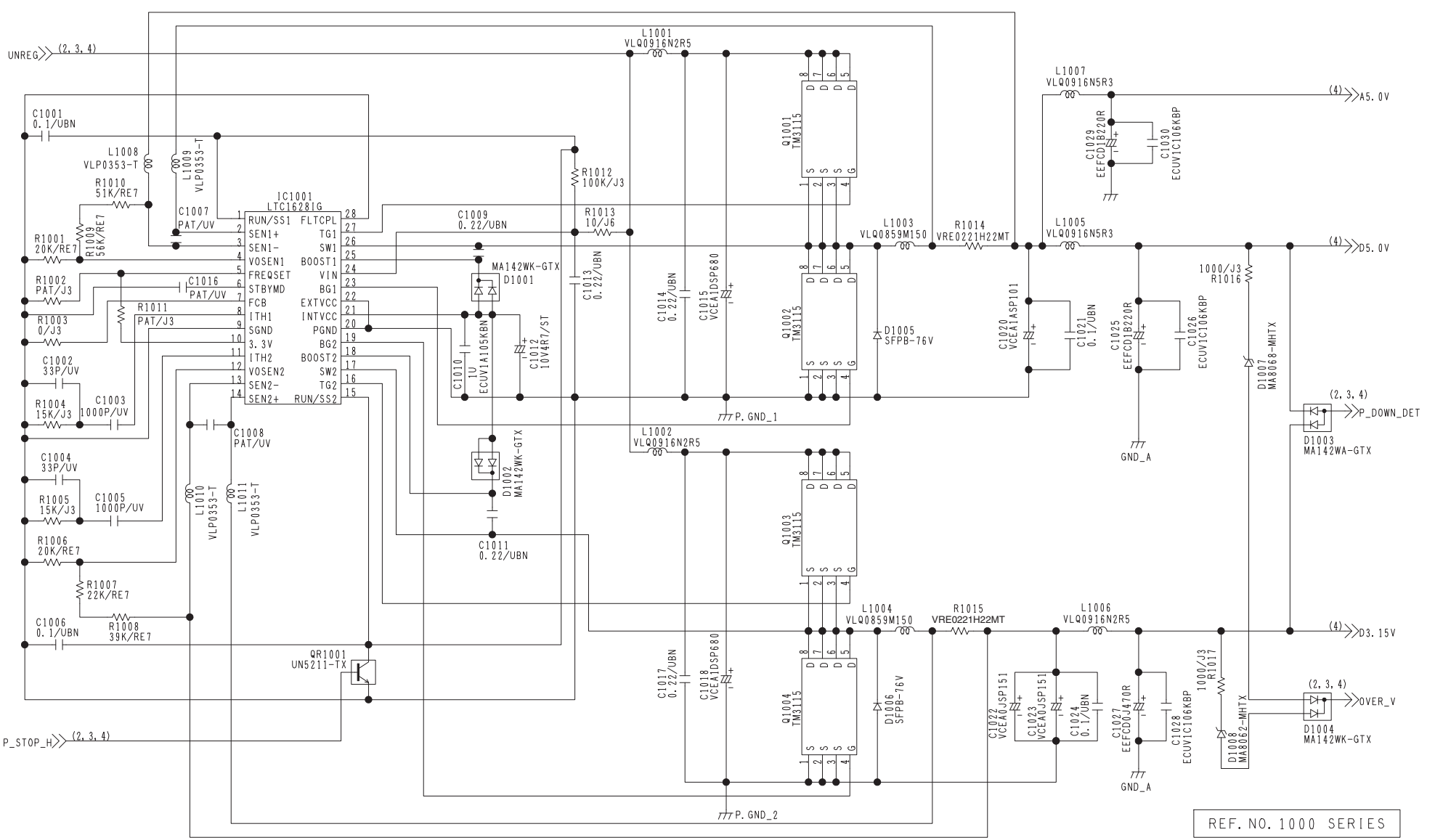
PAT=PATTERN ONLY

⚠ 警 告

⚠ の部品は、安全上重要な部品です。
交換するときは、安全及び性能維持のため、
必ず指定の部品をご使用ください。

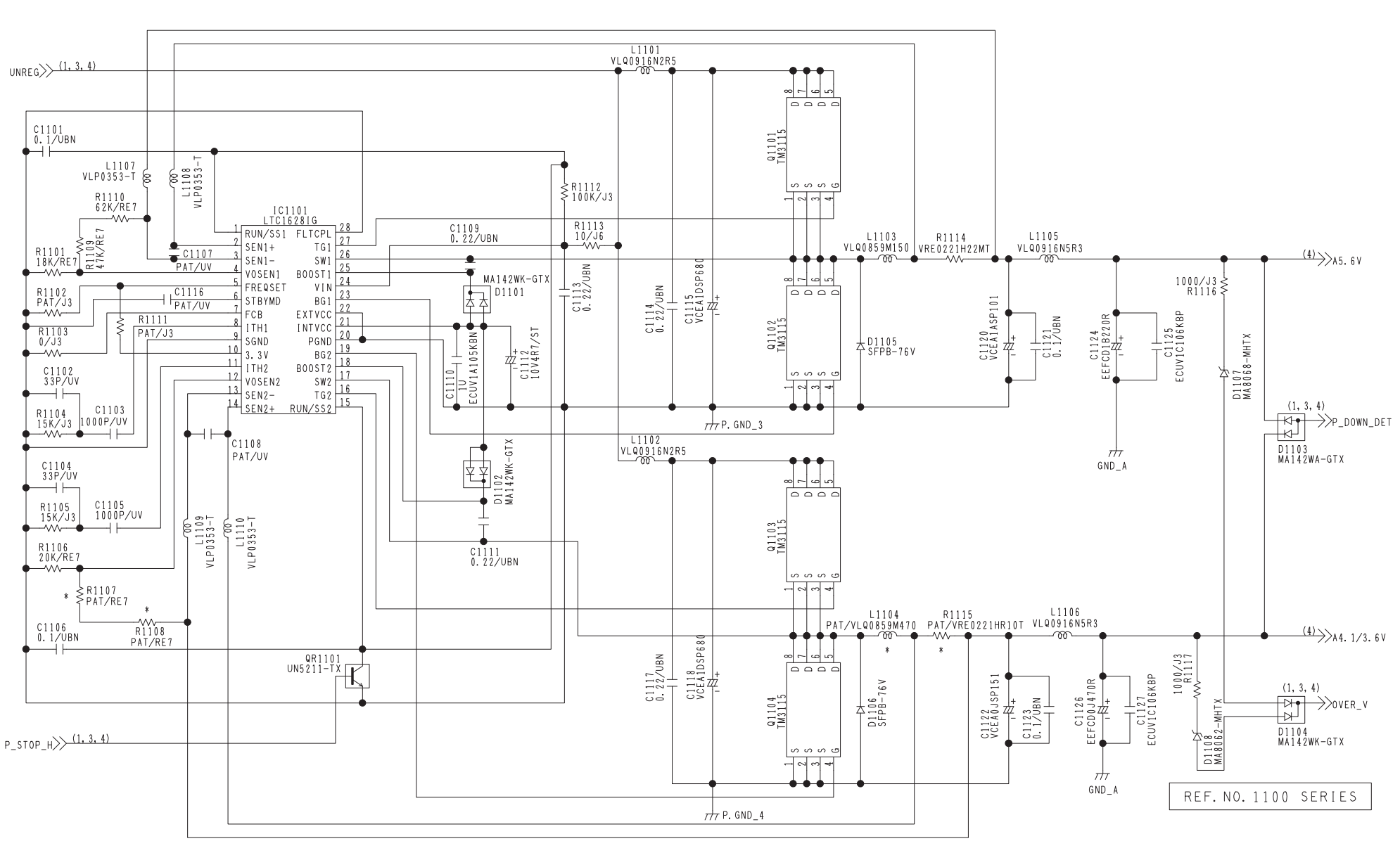
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

COMPONENT NAME	CUE	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP84353A		KR4J28 (1/1)
		SCM105



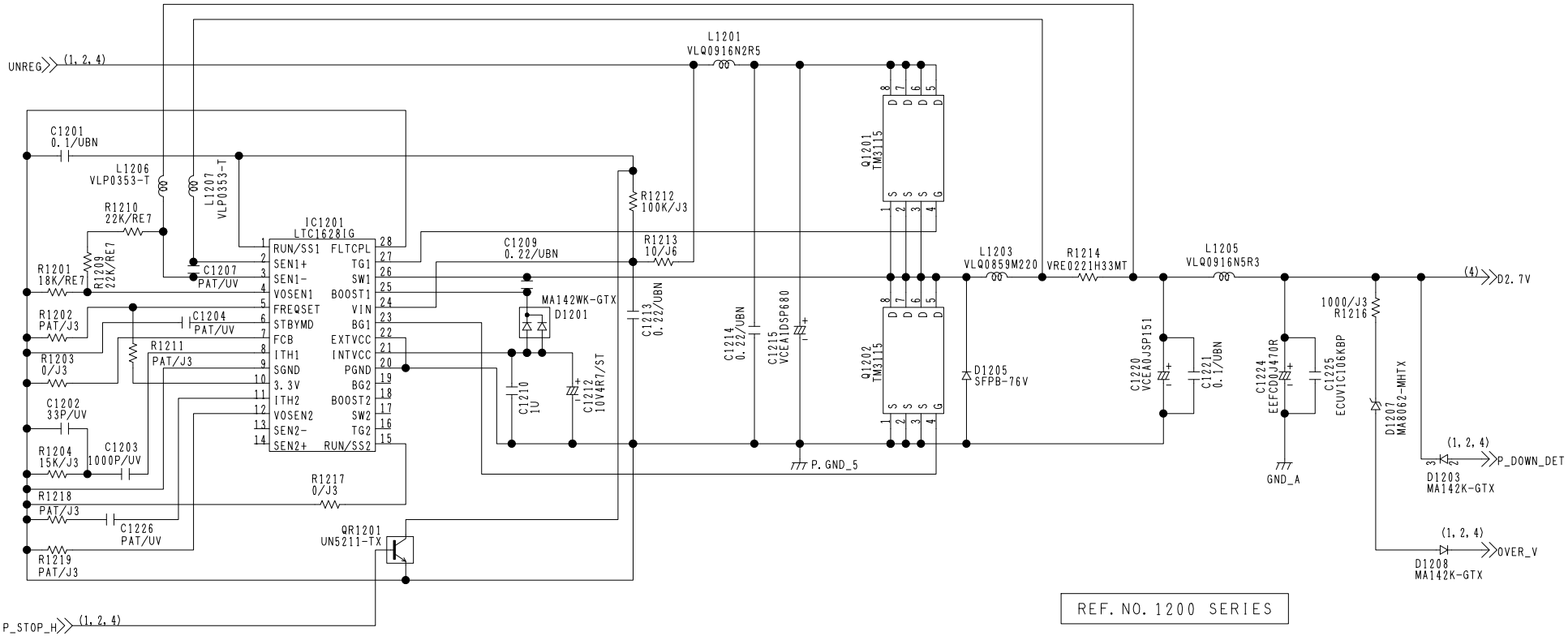
Ref. NO.	AJ-HDC27AP
R1015	VRE0221H22MT

COMPONENT NAME	POWER MAIN	01/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP81192C		KR1D67 (1/4)
		SCM106



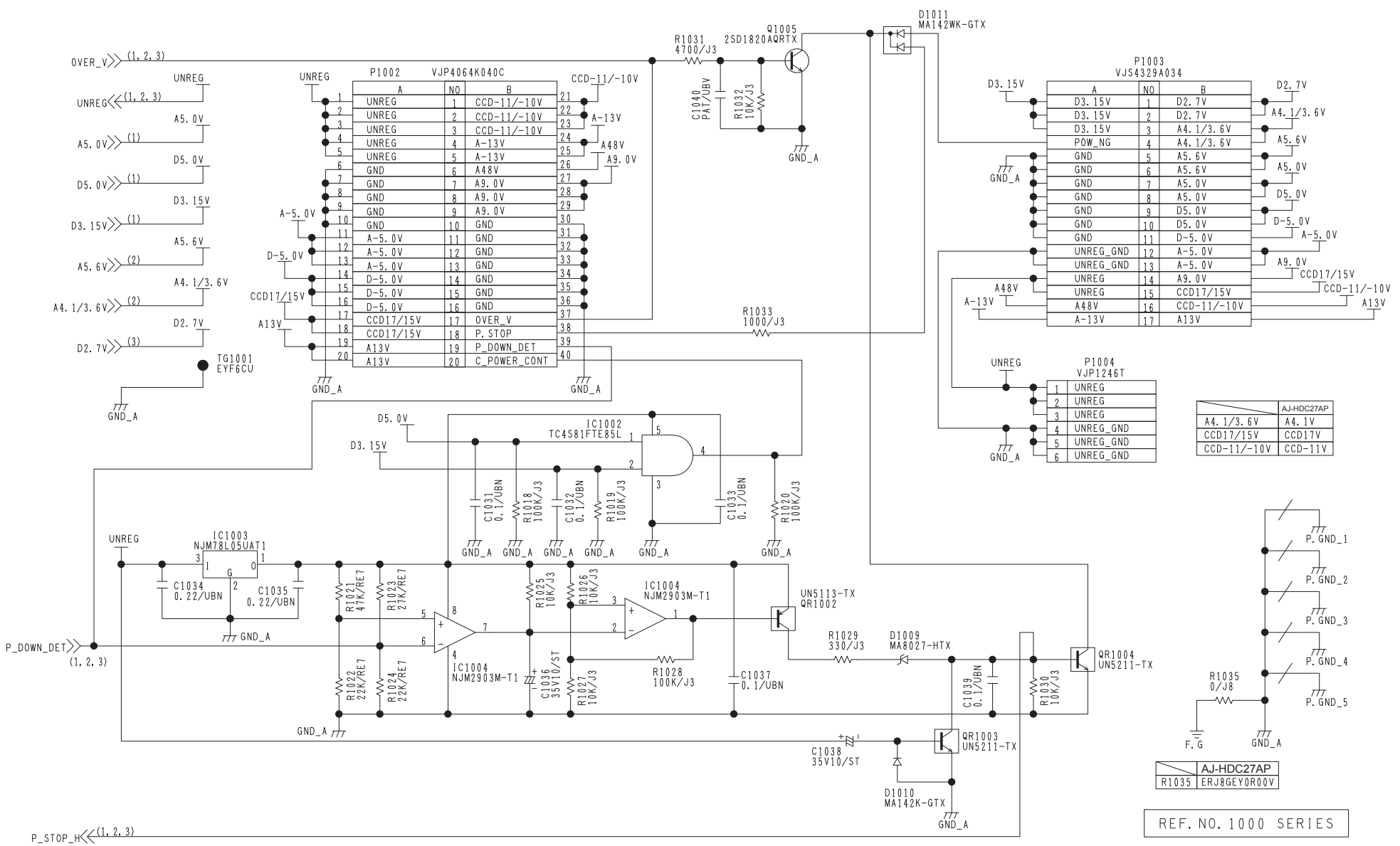
Ref. NO.	AJ-HDC27AP
R1107	82K/RE7
R1108	10K/RE7
L1104	VLQ0859M150
R1115	VRE0221H33MT

COMPONENT NAME	**POWER MAIN**	02/04
CIRCUIT BOARD NO.	DRAWING NO.	
VEP81192C	KR1D67 (2/4)	
	SCM107	

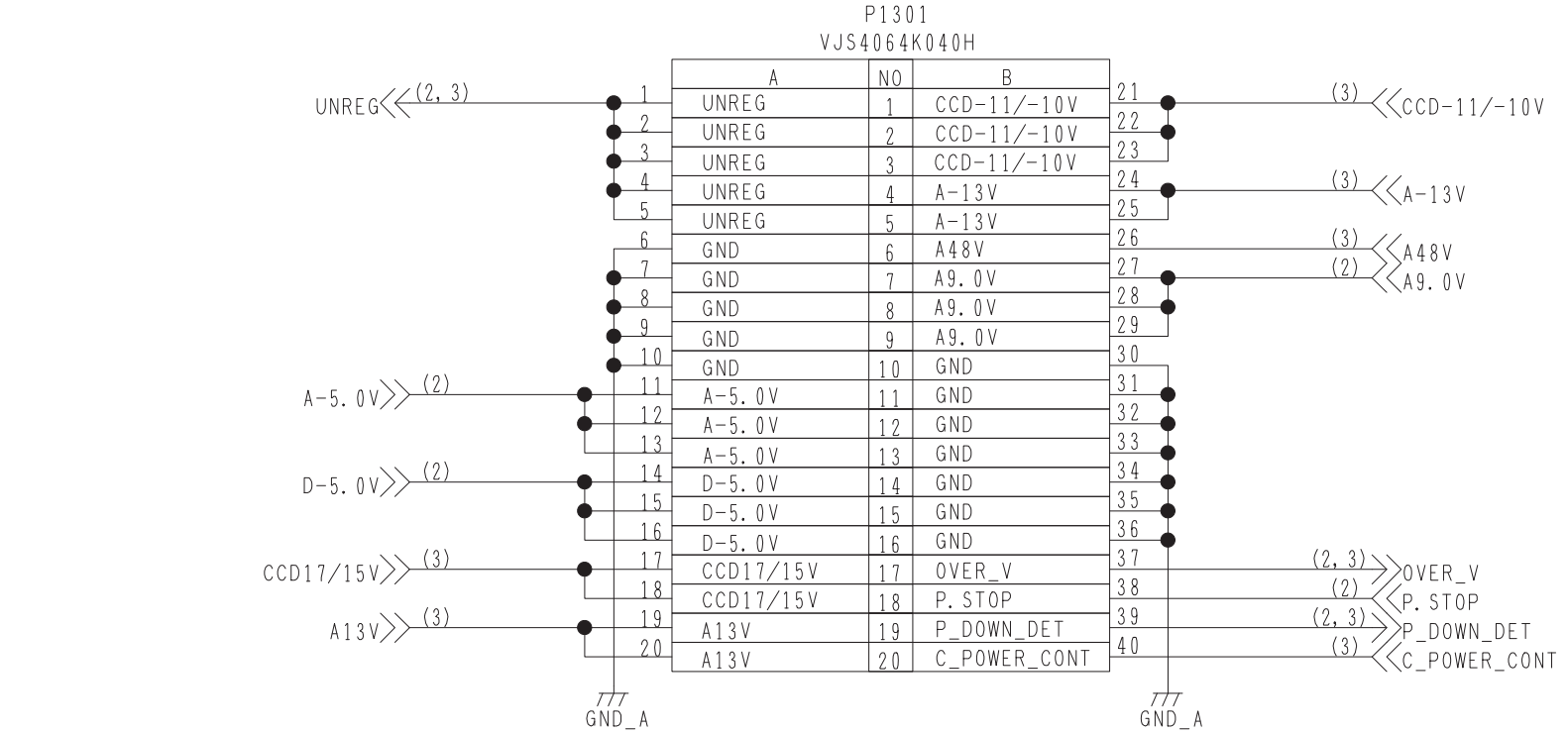


REF. NO. 1200 SERIES

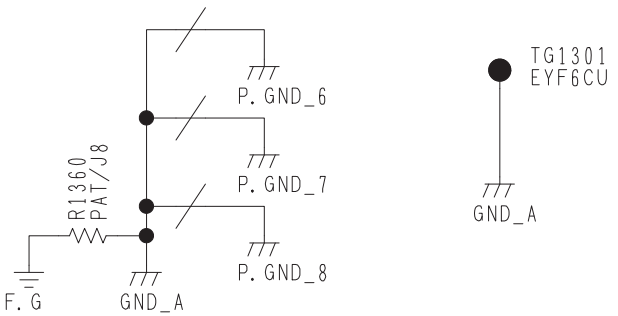
COMPONENT NAME	POWER MAIN	03/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP81192C		KR1D67 (3/4)
		SCM108



COMPONENT NAME	POWER MAIN	04/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP81192C		KR1D67 (4/4)-1
		SCM109

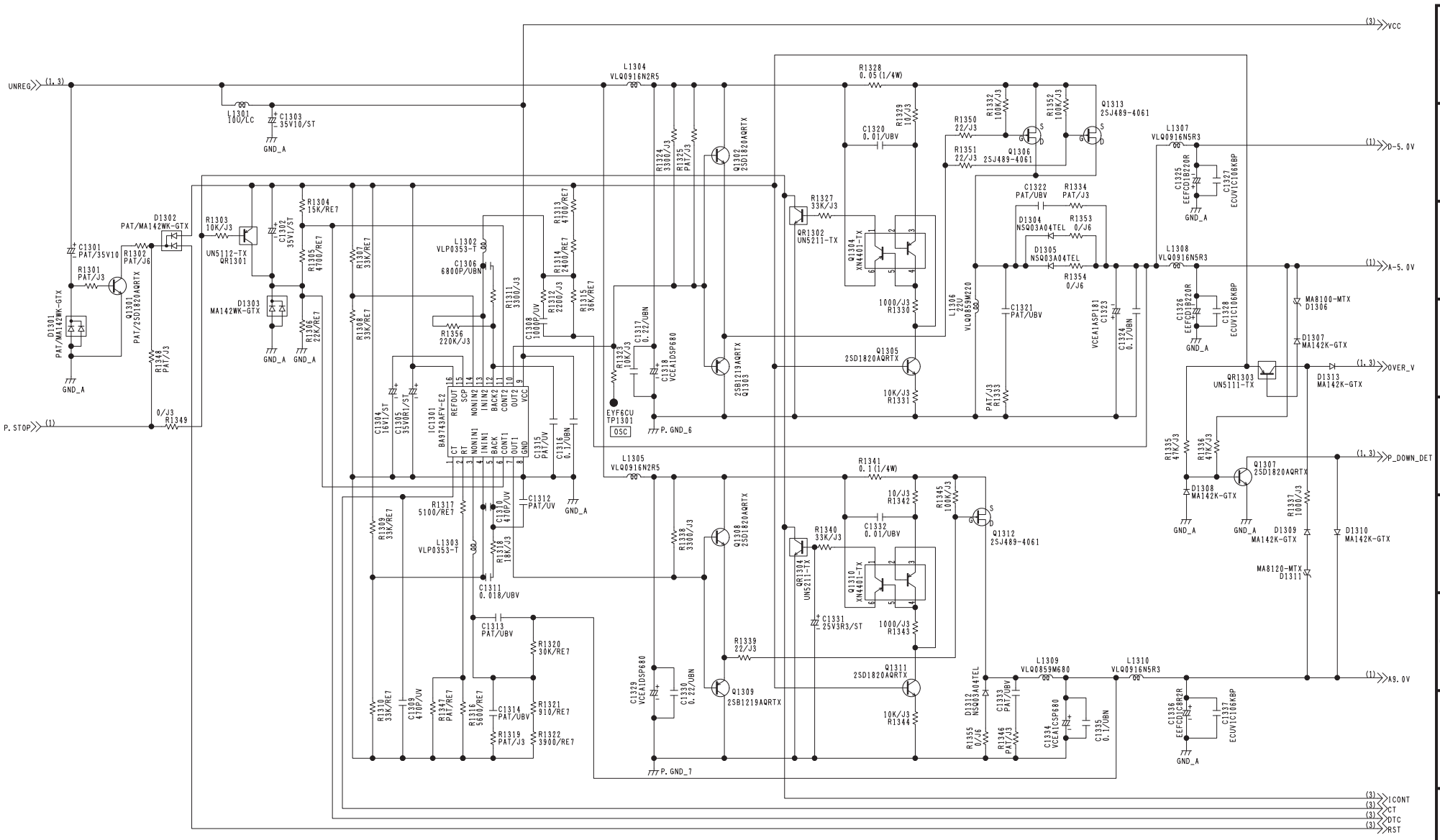


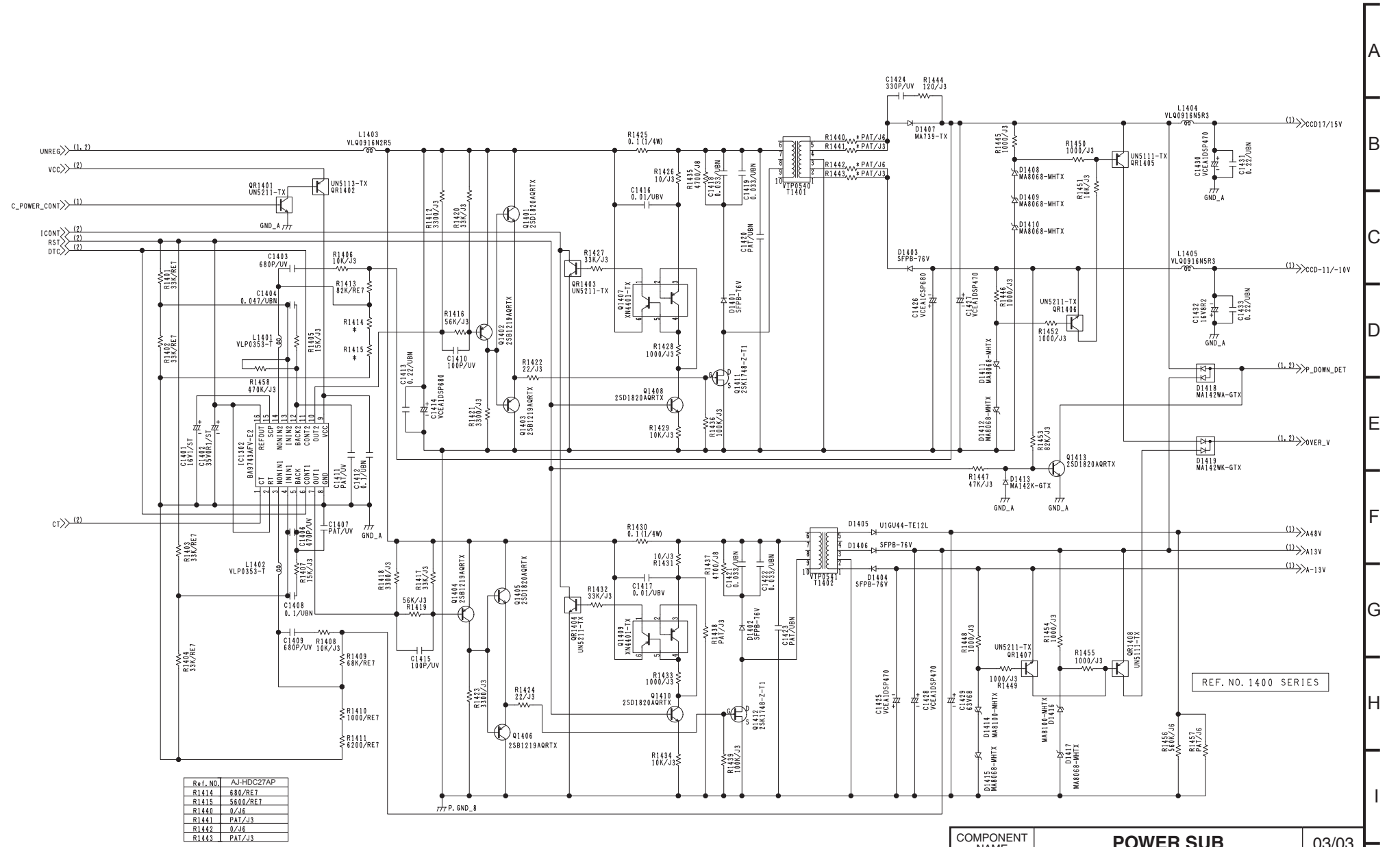
	AJ-HDC27AP
A4.1/3.6V	A4.1V
CCD17/15V	CCD17V
CCD-11/-10V	CCD-11V



REF. NO. 1300 SERIES

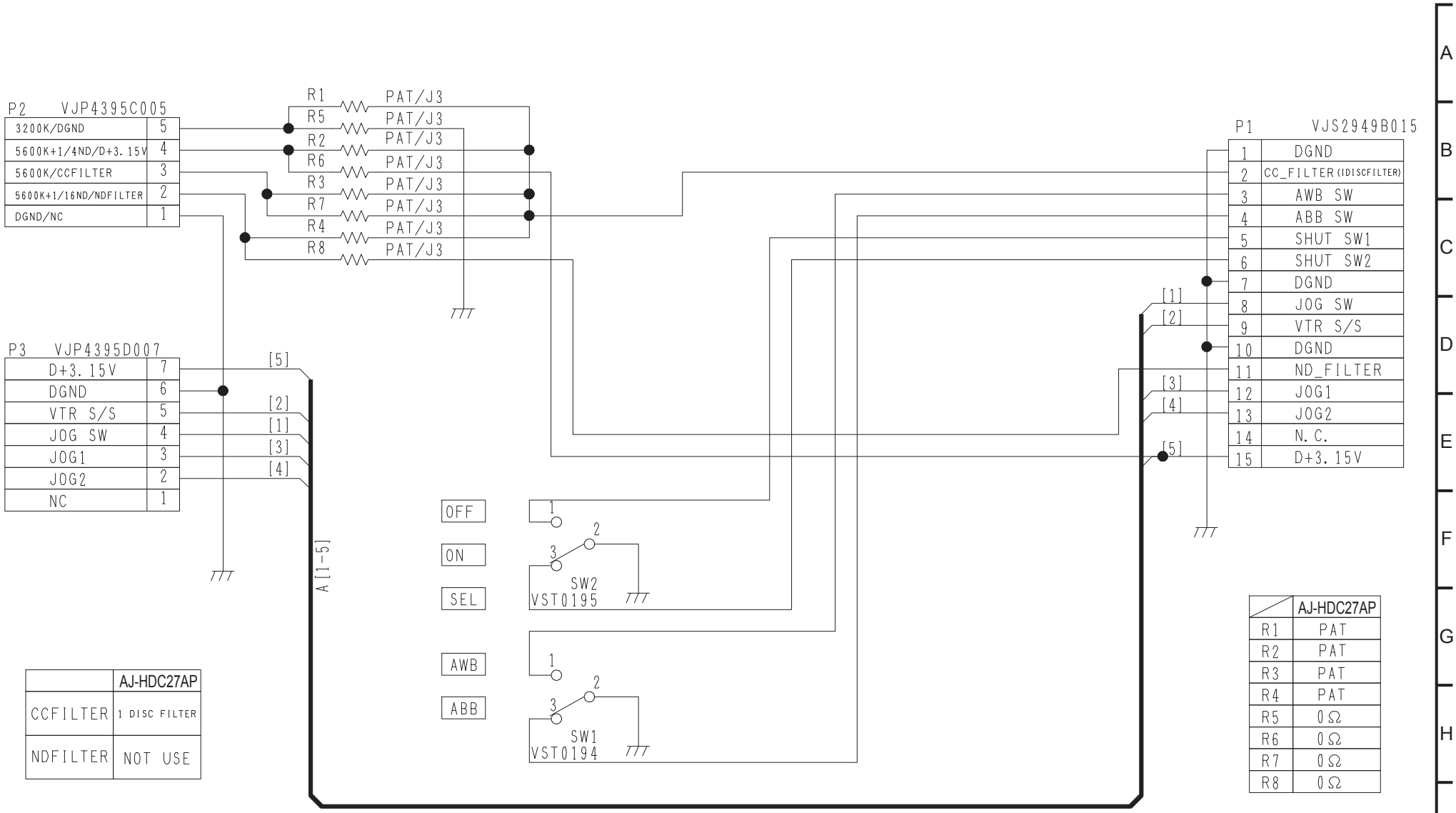
COMPONENT NAME	POWER SUB	01/03
CIRCUIT BOARD NO.		DRAWING NO.
VEP81204B		KR1E00 (1/3)
		SCM110


UNREG
P. STOP
VCC
D-5. 0V
A-5. 0V
OVER_V
P_DOWN_DET
A9. 0V
ICONT
CT
DTC
RST
P. GND_6
P. GND_7
GND_A
REF. NO. 1300 SERIES
COMPONENT NAME
POWER SUB
02/03
CIRCUIT BOARD NO.
VEP81204B
DRAWING NO.
KR1E00 (2/3)
SCM111



Ref. NO.	AJ-HDC27AP
R1414	680/RE7
R1415	5600/RE7
R1440	0/J6
R1441	PAT/J3
R1442	0/J6
R1443	PAT/J3

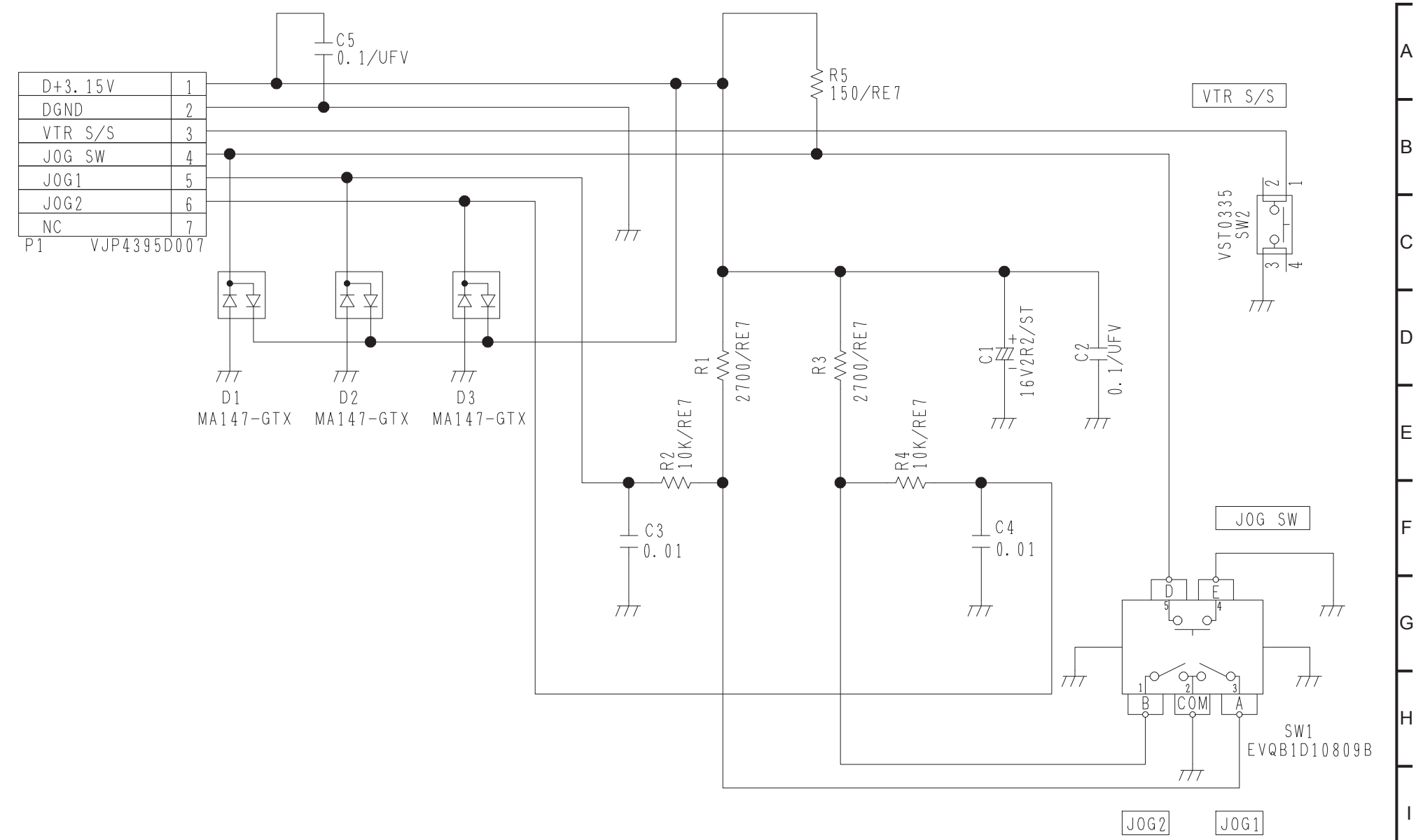
COMPONENT NAME	**POWER SUB**	03/03
CIRCUIT BOARD NO.	DRAWING NO.	
VEP81204B	KR1E00 (3/3)-1	
	SCM112	



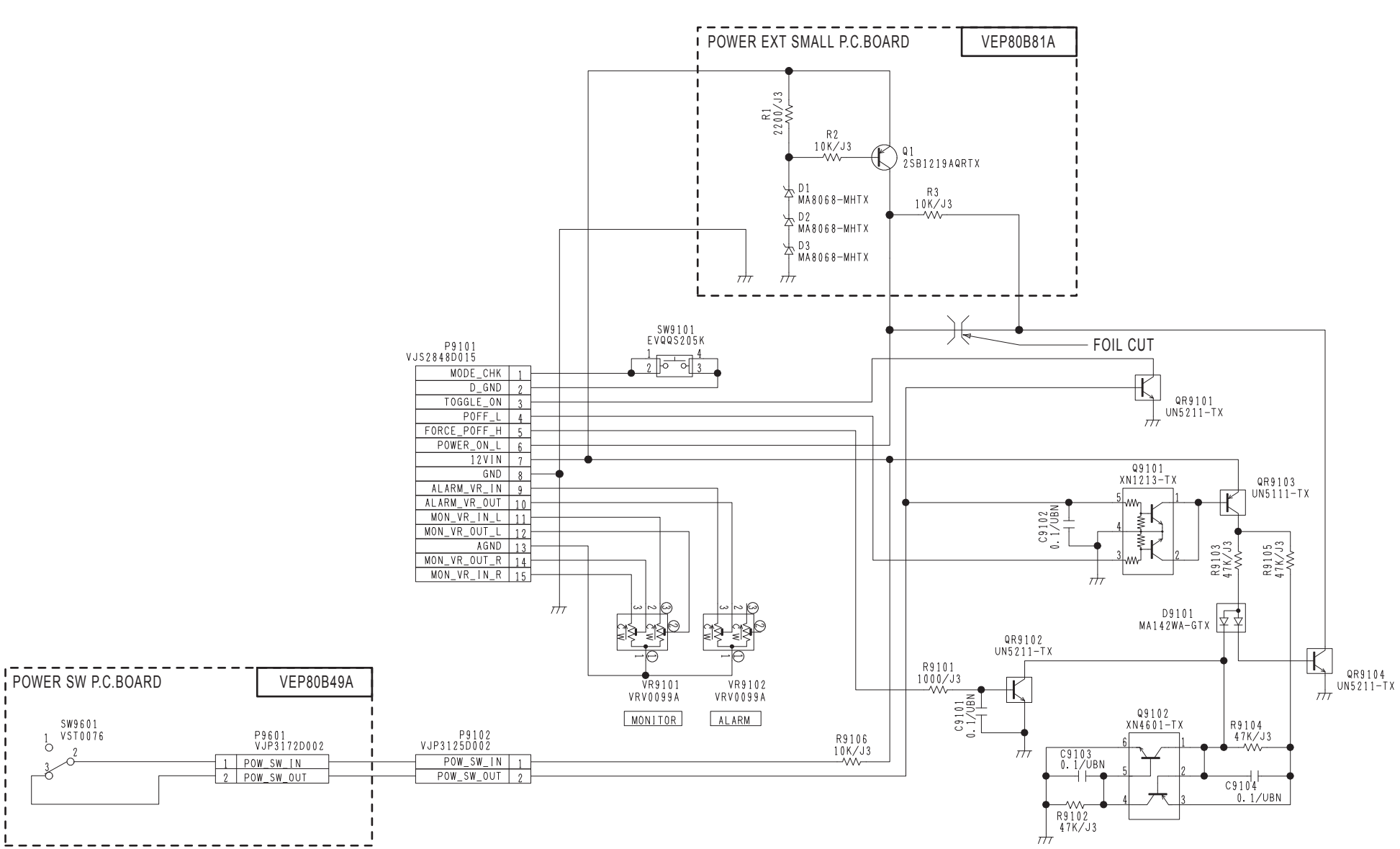
	AJ-HDC27AP
CCFILTER	1 DISC FILTER
NDFILTER	NOT USE

	AJ-HDC27AP
R1	PAT
R2	PAT
R3	PAT
R4	PAT
R5	0Ω
R6	0Ω
R7	0Ω
R8	0Ω

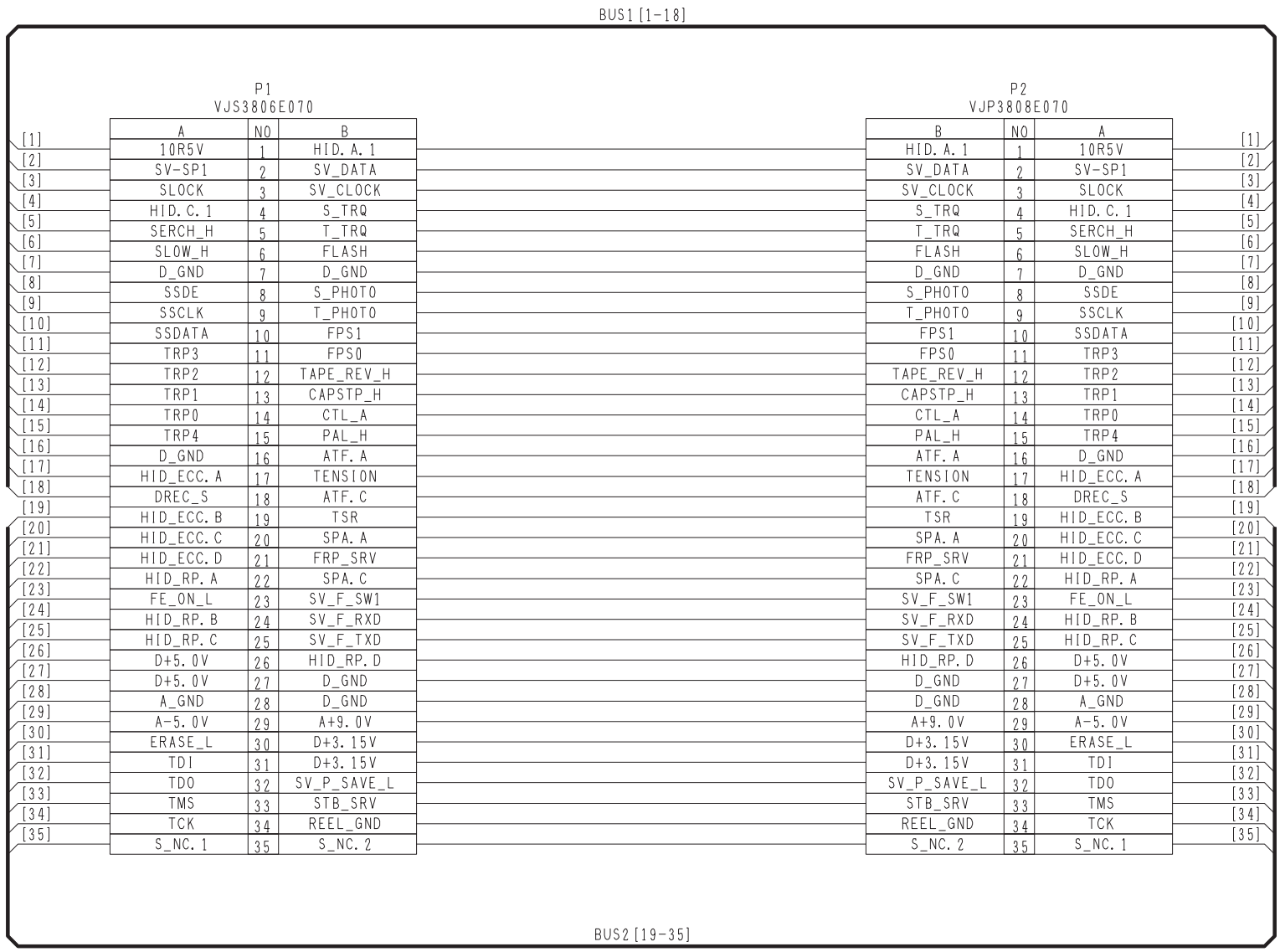
COMPONENT NAME	FRONT TOGGLE	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B16B		KR0M60 (1/1)
		SCM113



COMPONENT NAME	JOG MENU	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B52A		KR0N50 (1/1)
		SCM114



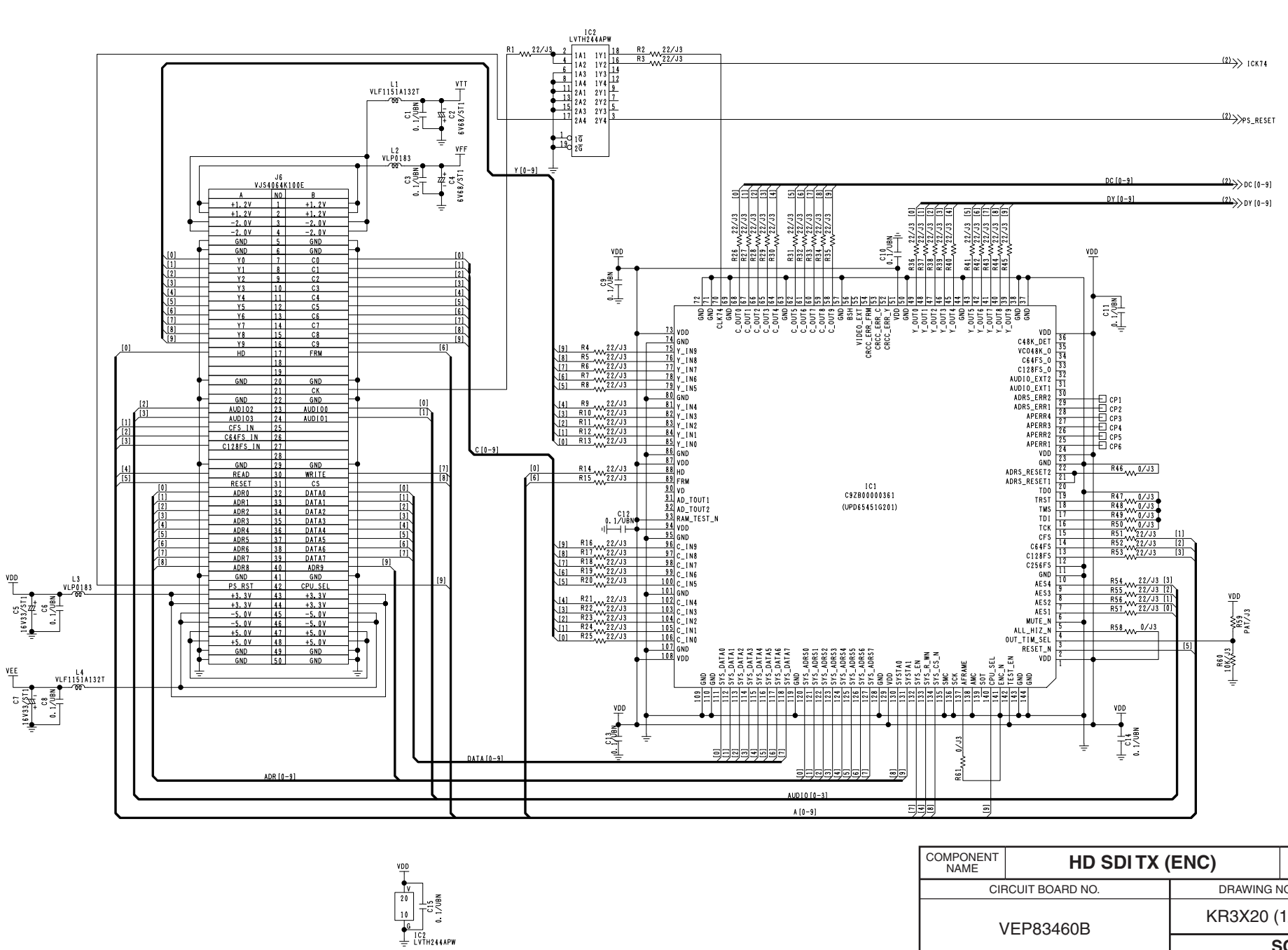
COMPONENT NAME	**MONITOR SW (MONITOR VR)**	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B47A		KR0N45 (1/1)
		SCM115



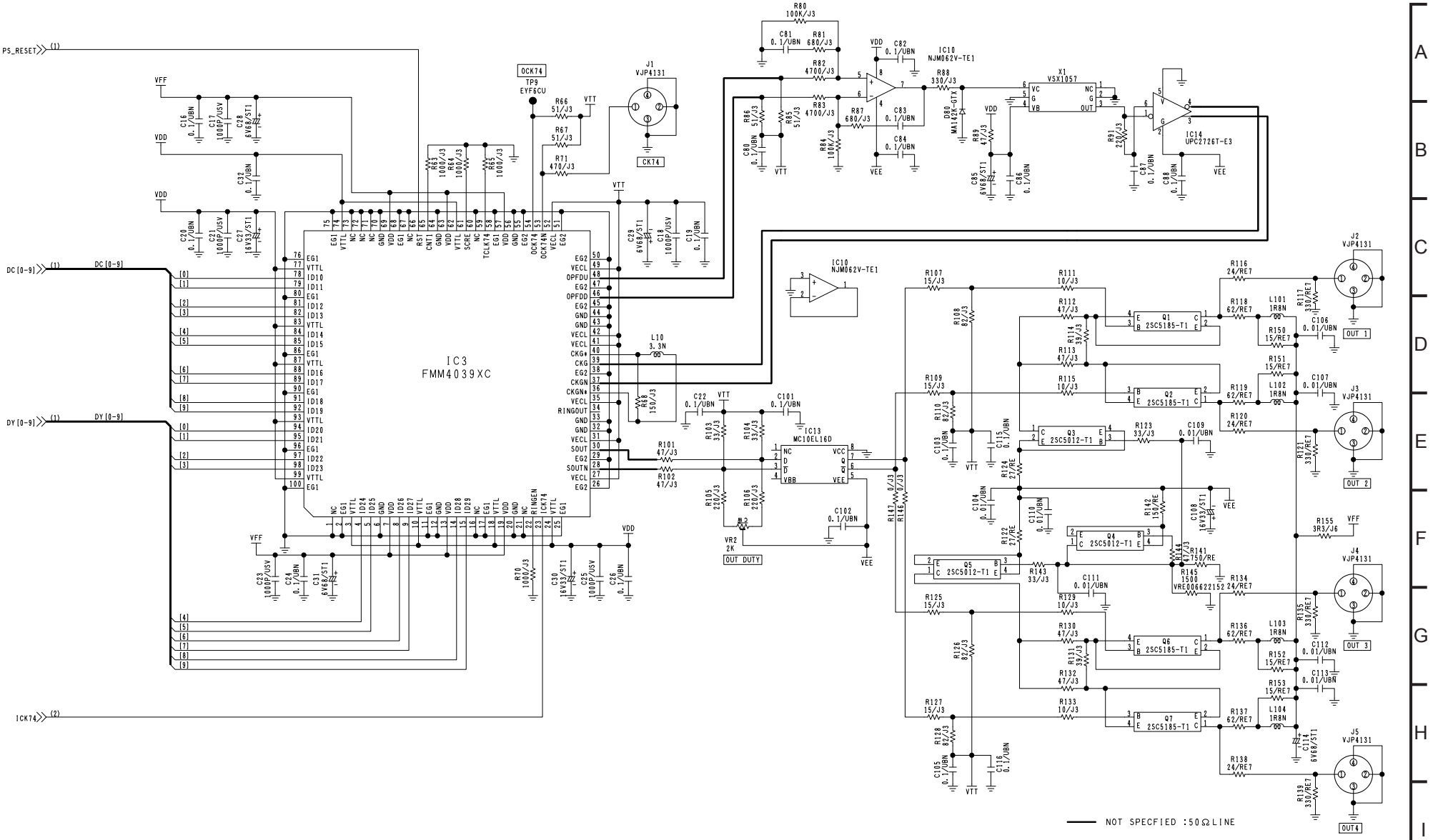
COMPONENT NAME	SERVO FLEX	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B38A		KR0M93 (1/1)
		SCM116

A B C D E F G H I J

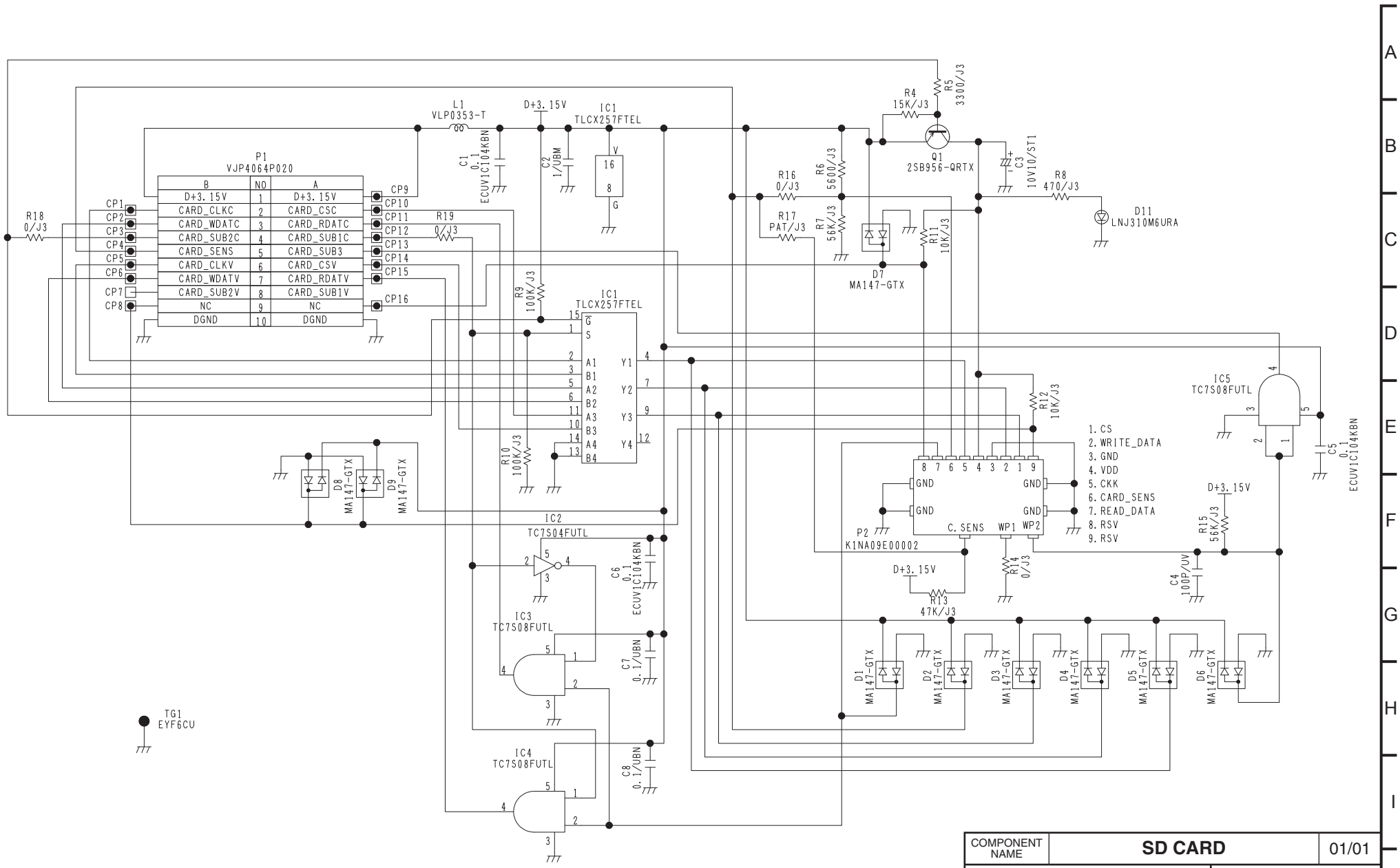
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



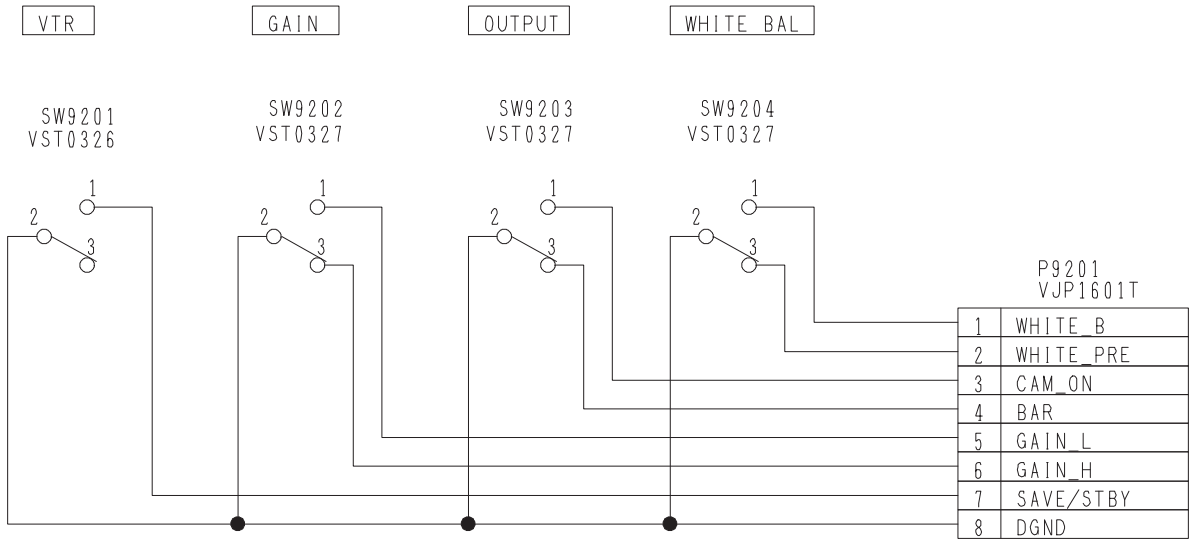
COMPONENT NAME	HD SDI TX (ENC)	01/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP83460B		KR3X20 (1/2)
		SCM117



COMPONENT NAME	HD SDI TX (P/S, DRV)	02/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP83460B		KR3X20 (2/2)-1
		SCM118



COMPONENT NAME	**SD CARD**	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP23532A		KR30106 (1/1)
		SCM119

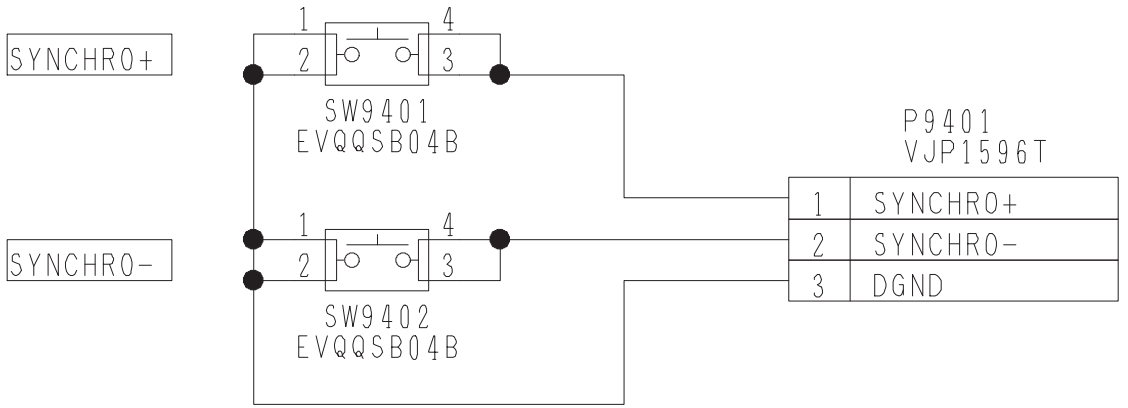


PAT=PATTERN ONLY

COMPONENT NAME	TOGGLE SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B15A		KR0M59 (1/1)
		SCM120

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

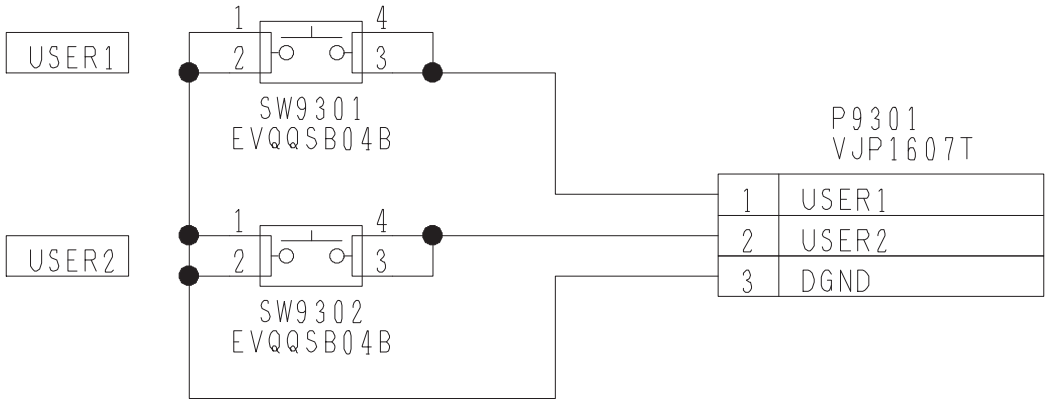


PAT=PATTERN ONLY

COMPONENT NAME	SYNCHRO SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B50A		KR0N48 (1/1)
		SCM121

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

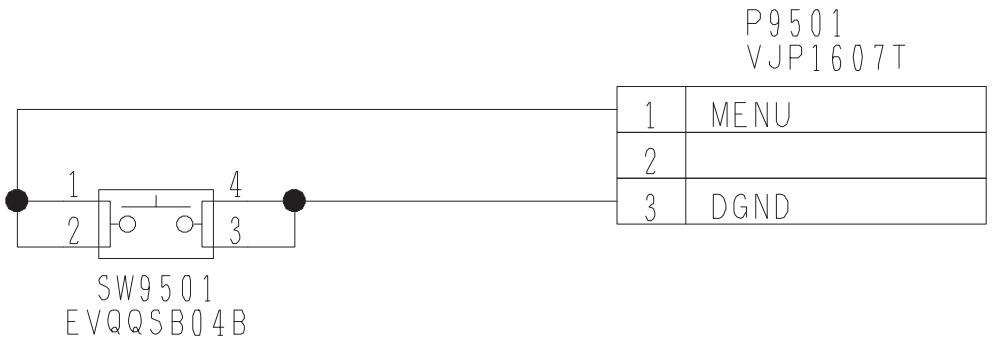


PAT=PATTERN ONLY

COMPONENT NAME	USER SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B51A		KR0N49 (1/1)
		SCM122

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

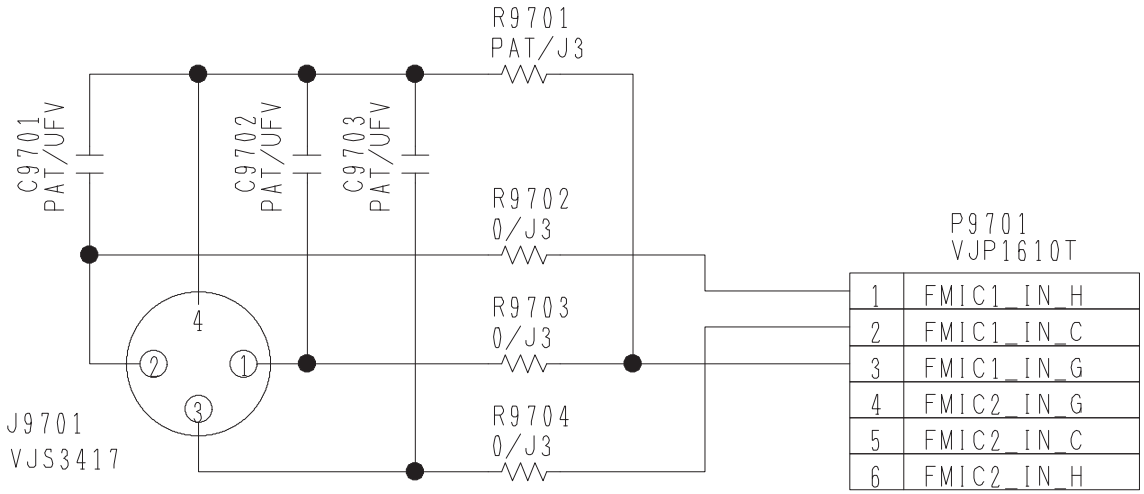


PAT=PATTERN ONLY

COMPONENT NAME	MENU SW	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B53A		KR0N56 (1/1)
		SCM123

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

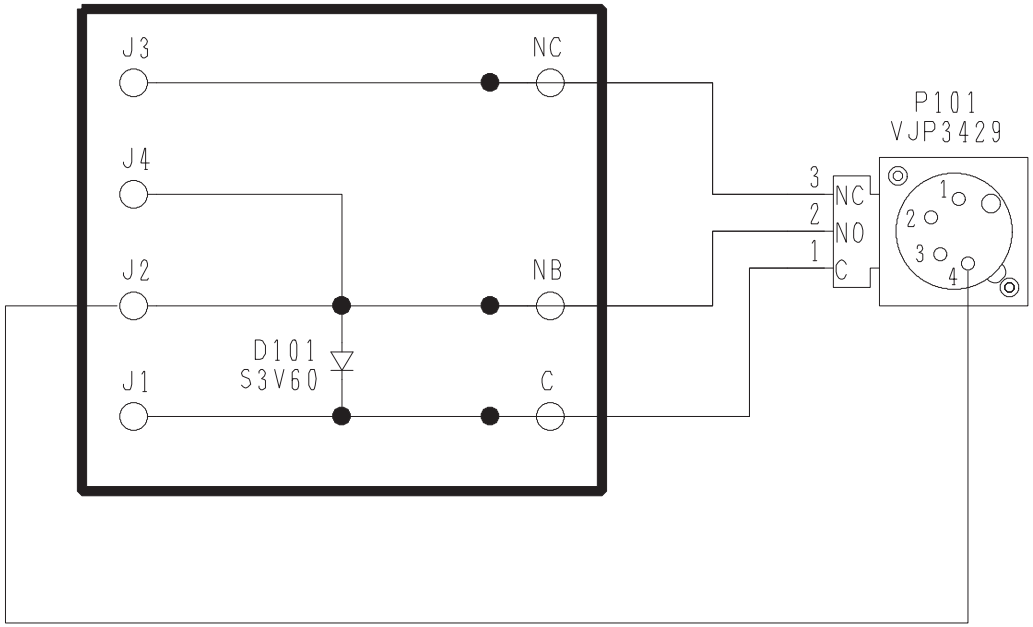


PAT=PATTERN ONLY

COMPONENT NAME	FRONT MIC	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B17A		KR0M61 (1/1)
		SCM124

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



COMPONENT NAME	EXT DC (DC INPUT)	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP80B75A		KR0P37 (1/1)
		SCM125

A B C D E F G H I J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

SECTION 8

CIRCUIT BOARD DIAGRAMS

NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION9

CAUTION

THE ▭ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

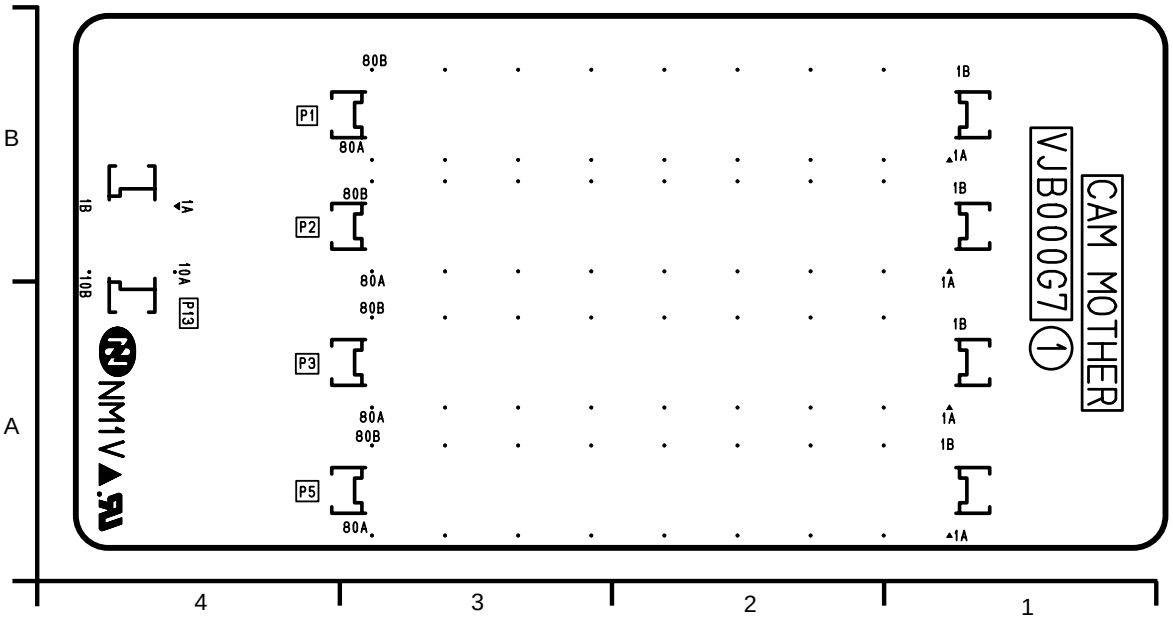
CONTENTS

CAMERA MOTOR P.C.BOARD (VEP000G7B)..... CBA-1
VTR MOTHER P.C.BOARD (VEP80B10A)..... CBA-2
CCD SENSOR P.C.BOARD (VEP20854A)..... CBA-4
TG P.C.BOARD (VEP20855A)..... CBA-6
DRIVE P.C.BOARD (VEP20856A)..... CBA-7
PRE AMP P.C.BOARD (VEP20857A)..... CBA-8
PRE PROCESS P.C.BOARD (VEP23534A)... CBA-9
DSP MAIN P.C.BOARD (VEP23530A)..... CBA-10
CAMERA SYSCON P.C.BOARD (VEP26234B)..... CBA-12
VIDEO OUT P.C.BOARD (VEP23500B)..... CBA-13
HEAD BUFF P.C.BOARD (VEP85179B)..... CBA-14
RF EQ P.C.BOARD (VEP87104B)..... CBA-15
SERVO P.C.BOARD (VEP82224A)..... CBA-17
VIDEO MAIN P.C.BOARD (VEP83462B)..... CBA-19
VTR SYSCON P.C.BOARD (VEP86303B)..... CBA-21
AUDIO LCD P.C.BOARD (VEP84331A)..... CBA-22
CUE P.C.BOARD (VEP84353A)..... CBA-24
POWER MAIN P.C.BOARD (VEP81192C)..... CBA-25
POWRE SUB P.C.BOARD (VEP81204B)..... CBA-26
HD SDI TX P.C.BOARD (VEP83460B)..... CBA-27
INT CONNECT P.C.BOARD (VEP20804A)..... CBA-28
FRONT MIC P.C.BOARD (VEP80B17A)..... CBA-28
FRONT TOGGLE P.C.BOARD (VEP80B16B)..... CBA-28
JOG MENU P.C.BOARD (VEP80B52A)..... CBA-28
MONITOR VR P.C.BOARD (VEP80B47A)..... CBA-29
TOGGLE SW P.C.BOARD (VEP80B15A)..... CBA-29
USER SW P.C.BOARD (VEP80B51A)..... CBA-29
SYNCHRO SW P.C.BOARD (VEP80B50A)..... CBA-29
MENU SW P.C.BOARD (VEP80B53A)..... CBA-29
SERVO FLEX P.C.BOARD (VEP80B38A)..... CBA-30
REAR JACK P.C.BOARD (VEP80B13B)..... CBA-30
REAR SW P.C.BOARD (VEP80B45A)..... CBA-30
SD CARD P.C.BOARD (VEP23532A)..... CBA-31
MEMORY P.C.BOARD (VEP23531A)..... CBA-31

CAMERA MOTHER P.C. BOARD (VEP000G7B)

COMPONENT SIDE

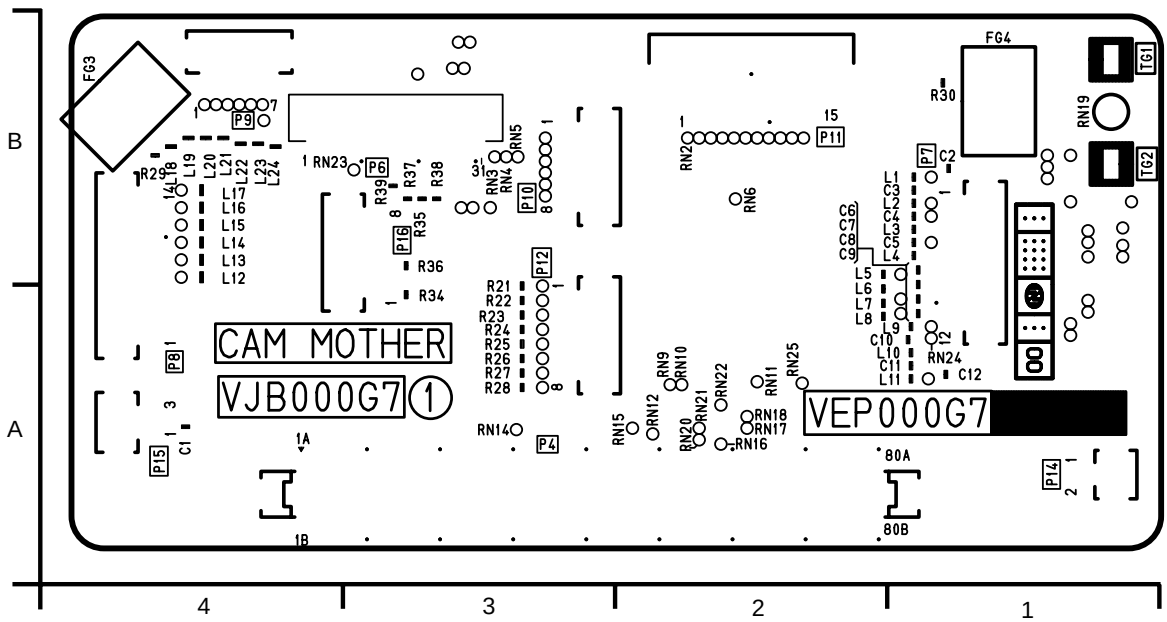
REF	LOC
P1	B3
P2	B3
P3	A3
P5	A3
P13	B4



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
P4	A3
P6	B3
P7	B1
P8	B4
P9	B4
P10	B3
P11	B2
P12	A3
P14	A1
P15	A4
P16	B4
TG1	B1
TG2	B1

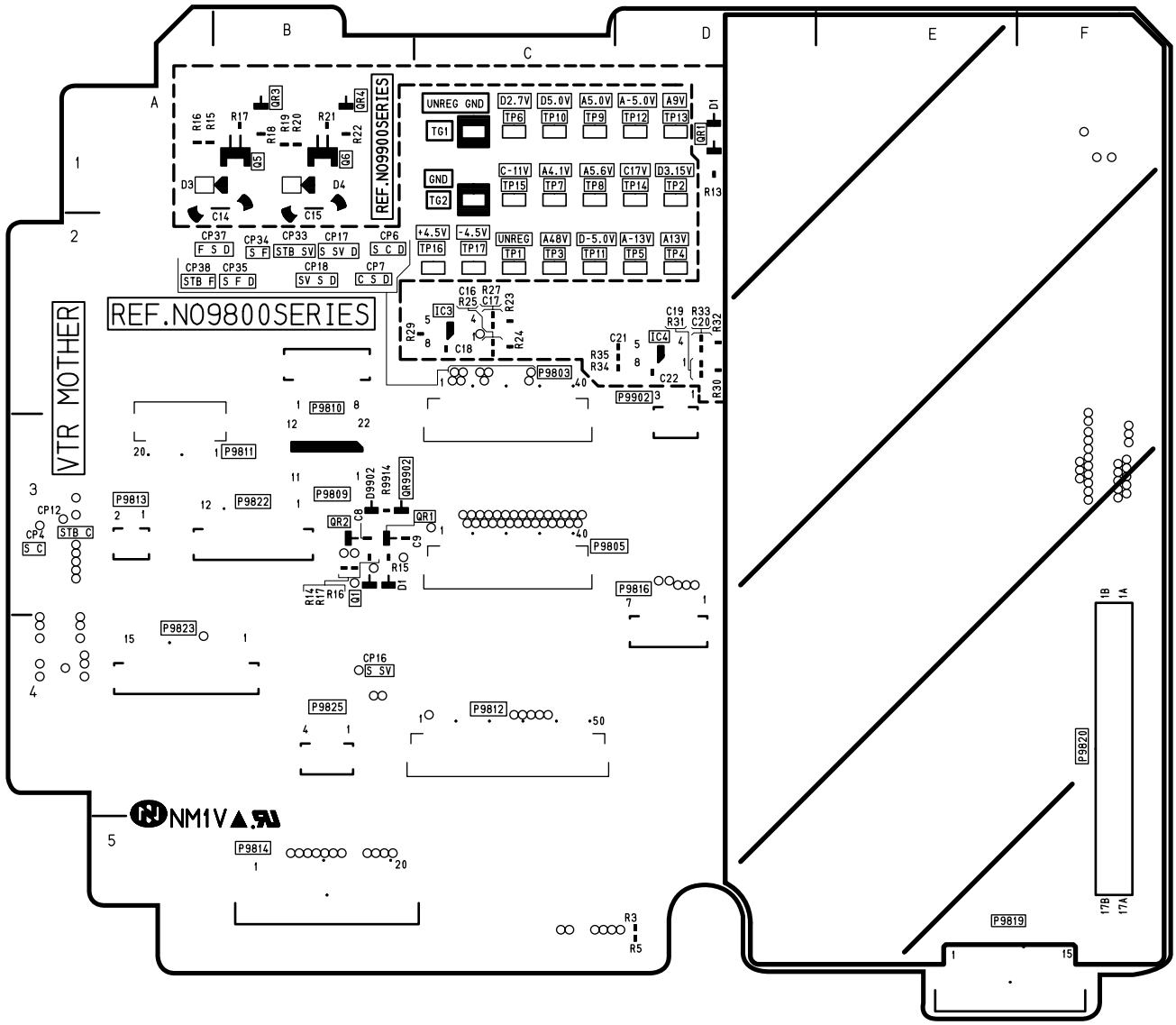


(FOIL SIDE)

VTR MOTHER P.C. BOARD (VEP80B10A)

COMPONENT SIDE

REF	LOC	REF	LOC
IC9903	C2	QR9902	B3
IC9904	D2	QR9903	B1
P9803	C2	QR9904	B1
P9805	C3	TG9801	C1
P9809	B3	TG9802	C1
P9810	B2	TP9801	C2
P9811	A3	TP9802	D1
P9812	C4	TP9803	C2
P9813	A3	TP9804	D2
P9814	B5	TP9805	D2
P9816	D4	TP9806	C1
P9819	E5	TP9807	C1
P9820	F4	TP9808	C1
P9822	B3	TP9809	C1
P9823	A4	TP9810	C1
P9825	B4	TP9811	C2
P9902	D2	TP9812	D1
Q9801	B3	TP9813	D1
Q9905	B1	TP9814	D1
Q9906	B1	TP9815	C1
QR9801	B3	TP9816	C2
QR9802	B3	TP9817	C2
QR9901	D1		

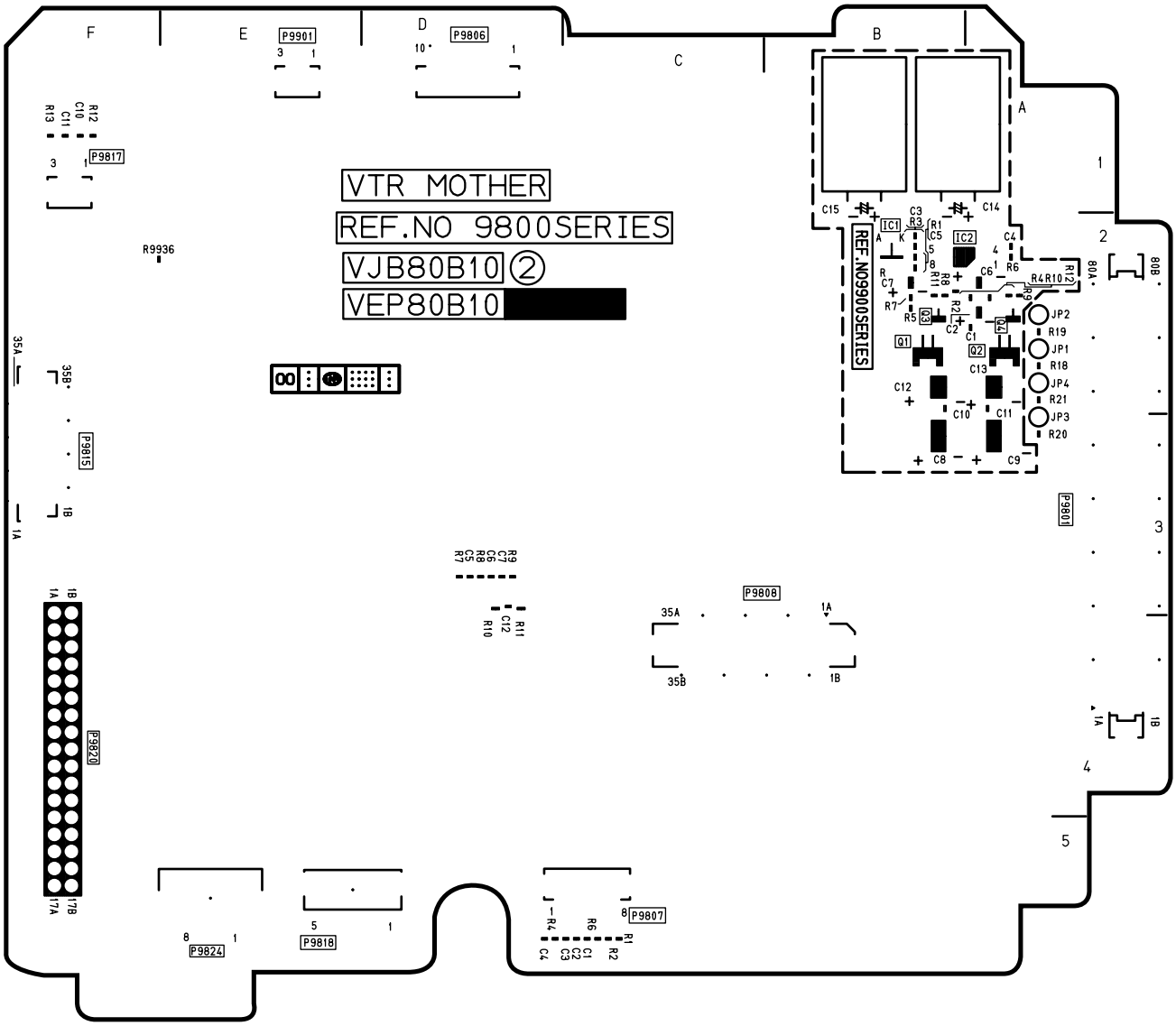


(COMPONENT SIDE)

VTR MOTHER P.C. BOARD (VEP80B10A)

FOIL SIDE

REF	LOC
IC9901	B2
IC9902	B2
P9801	A3
P9806	D1
P9807	C5
P9808	C4
P9815	F3
P9817	F1
P9818	E5
P9820	F4
P9824	E5
P9901	E1
Q9901	B2
Q9902	A2
Q9903	B2
Q9904	A2

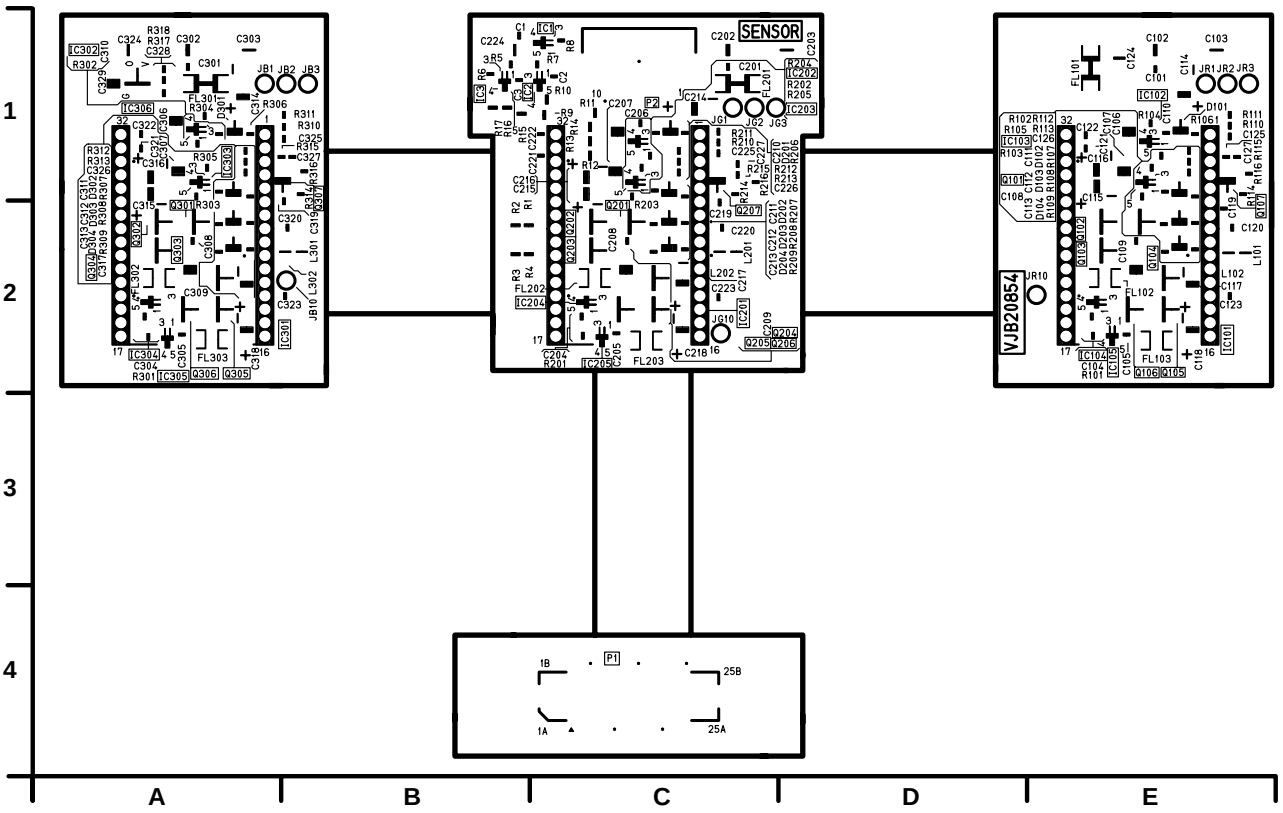


(FOIL SIDE)

CCD SENSOR P.C. BOARD (VEP20854A)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC
IC1	C1	IC302	A1	Q201	C2
IC2	B1	IC303	A1	Q202	C2
IC3	B1	IC304	A2	Q203	C2
IC101	E2	IC305	A2	Q204	C2
IC102	E1	IC306	A1	Q205	C2
IC103	D1	P1	C4	Q206	C2
IC104	E2	P2	C1	Q207	C2
IC105	E2	Q101	D1	Q301	A2
IC201	C2	Q102	E2	Q302	A2
IC202	D1	Q103	E2	Q303	A2
IC203	D1	Q104	E2	Q304	A2
IC204	C2	Q105	E2	Q305	A2
IC205	C2	Q106	E2	Q306	A2
IC301	A2	Q107	E1	Q307	A1

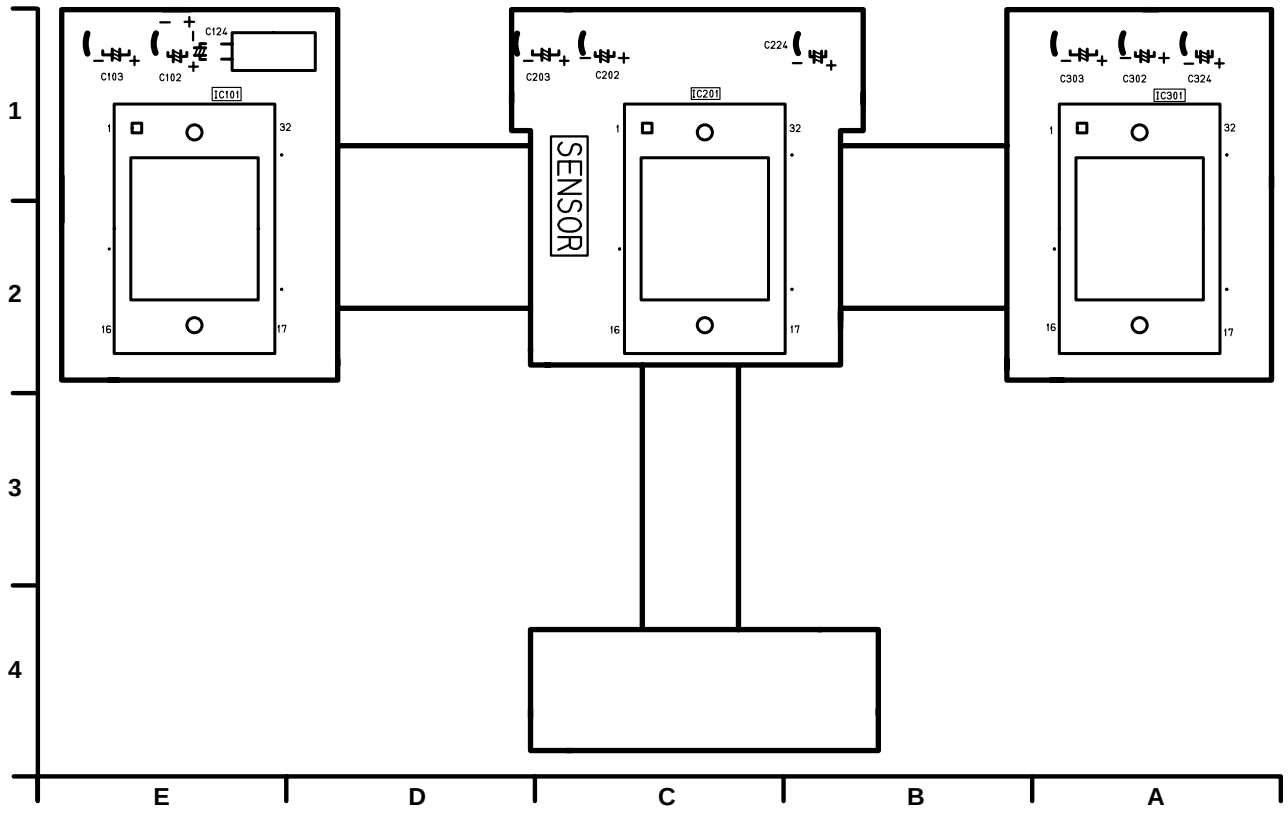


(COMPONENT SIDE)

CCD SENSOR P.C. BOARD (VEP20854A)

FOIL SIDE

IC101	E1
IC201	C1
IC301	A1

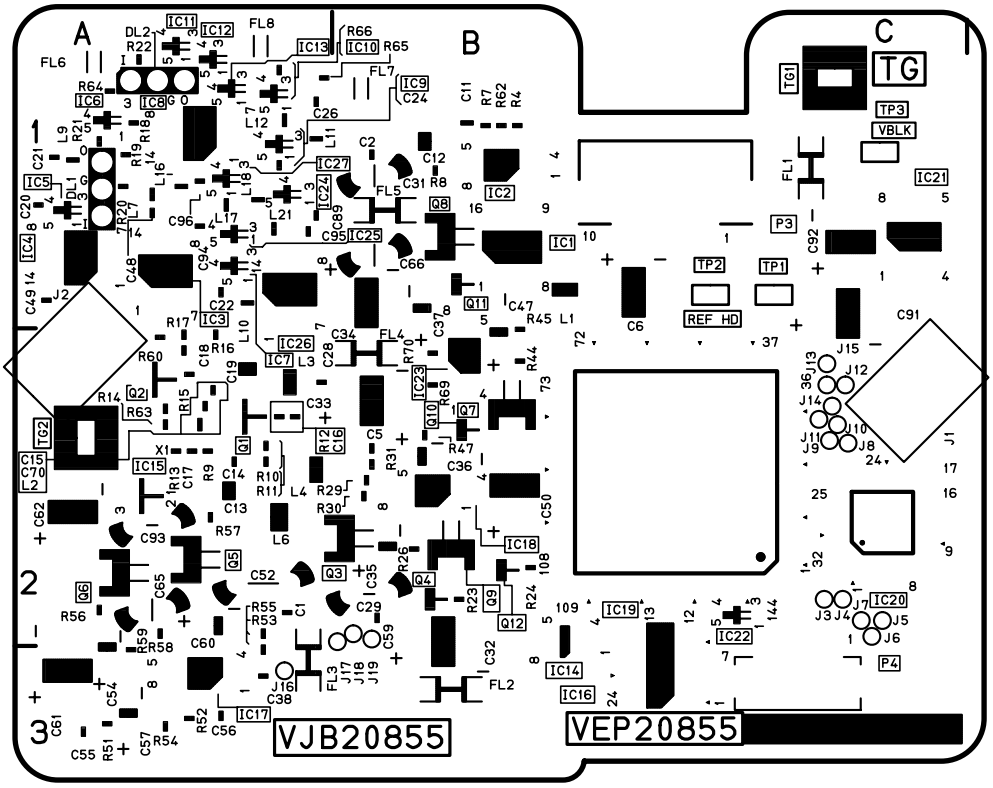


(FOIL SIDE)

TG P.C. BOARD (VEP20855A)

COMPONENT SIDE

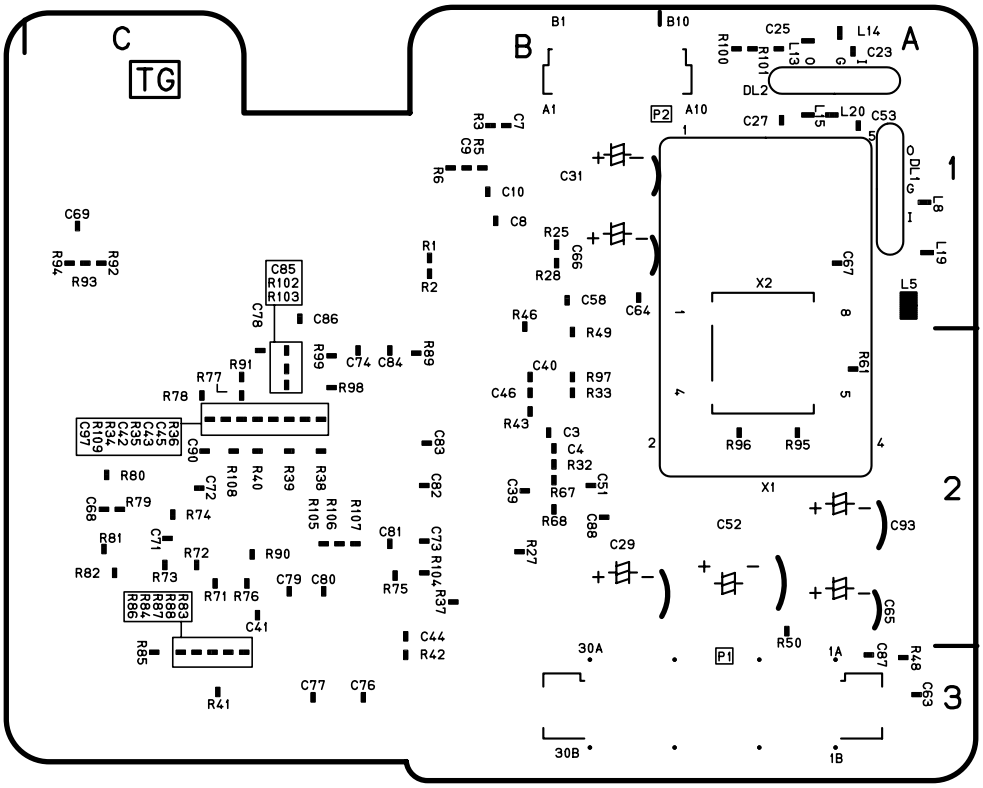
REF	LOC	REF	LOC
IC1	B1	IC24	A1
IC2	B1	IC25	A1
IC3	A1	IC26	A1
IC4	A1	IC27	A1
IC5	A1	P3	C1
IC6	A1	P4	C3
IC7	A1	Q1	A2
IC8	A1	Q2	A2
IC9	A1	Q3	B2
IC10	A1	Q4	B2
IC11	A1	Q5	A2
IC12	A1	Q6	A2
IC13	A1	Q7	B2
IC14	B3	Q8	B1
IC15	A2	Q9	B2
IC16	B3	Q10	B2
IC17	A3	Q11	B1
IC18	B2	Q12	B2
IC19	B2	TG1	C1
IC20	C2	TG2	A2
IC21	C1	TP1	C1
IC22	C2	TP2	C1
IC23	B2	TP3	C1



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
P1	A1
P2	B1



(FOIL SIDE)

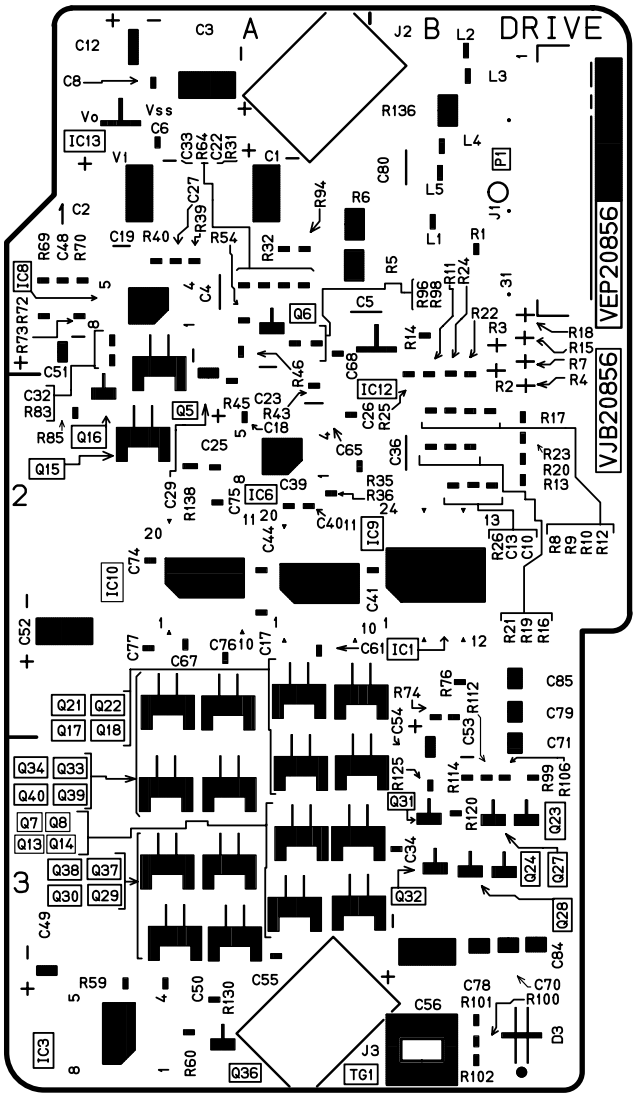
DRIVE P.C. BOARD (VEP20856A)

COMPONENT SIDE

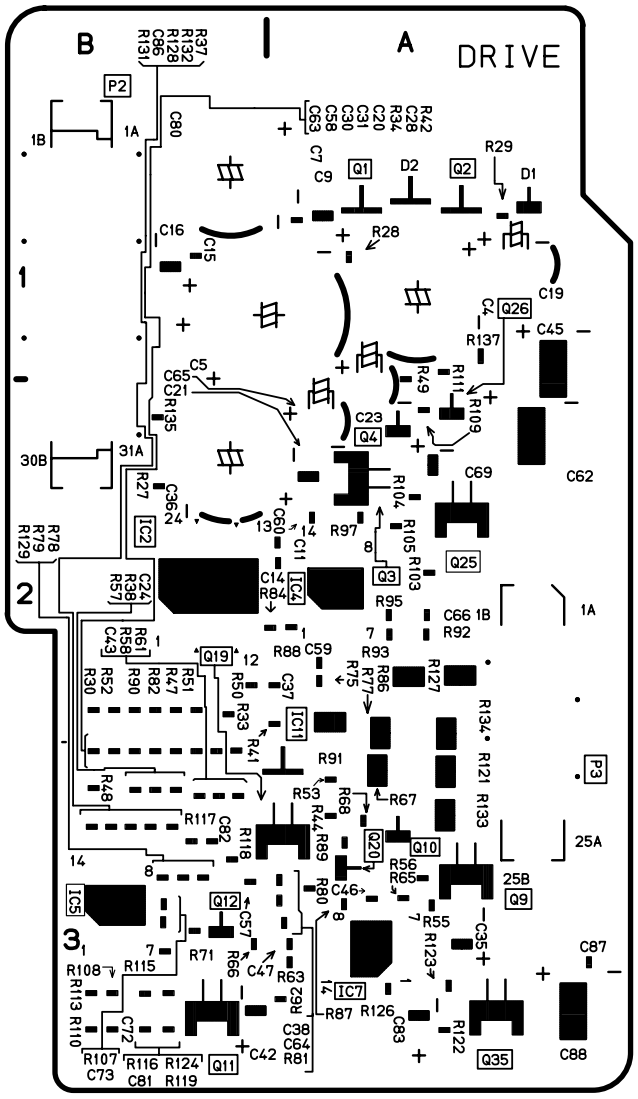
REF	LOC	REF	LOC
IC1	B2	Q22	A2
IC3	A3	Q23	B3
IC6	A2	Q24	B3
IC8	A1	Q27	B3
IC9	A2	Q28	B3
IC10	A2	Q29	A3
IC12	B1	Q30	A3
IC13	A1	Q31	B3
P1	B1	Q32	B3
Q5	A1	Q33	A2
Q6	A1	Q34	A2
Q7	A3	Q36	A3
Q8	A3	Q37	A3
Q13	A3	Q38	A3
Q14	A3	Q39	A3
Q15	A2	Q40	A3
Q16	A2	TG1	B3
Q17	A3		
Q18	A3		
Q21	A2		

FOIL SIDE

REF	LOC
IC2	B2
IC4	A2
IC5	B3
IC7	A3
IC11	A3
P2	B1
P3	A3
Q1	A1
Q2	A1
Q3	A2
Q4	A2
Q9	A3
Q10	A3
Q11	B3
Q12	B3
Q19	A3
Q20	A3
Q25	A2
Q26	A2
Q35	A3



(COMPONENT SIDE)



(FOIL SIDE)

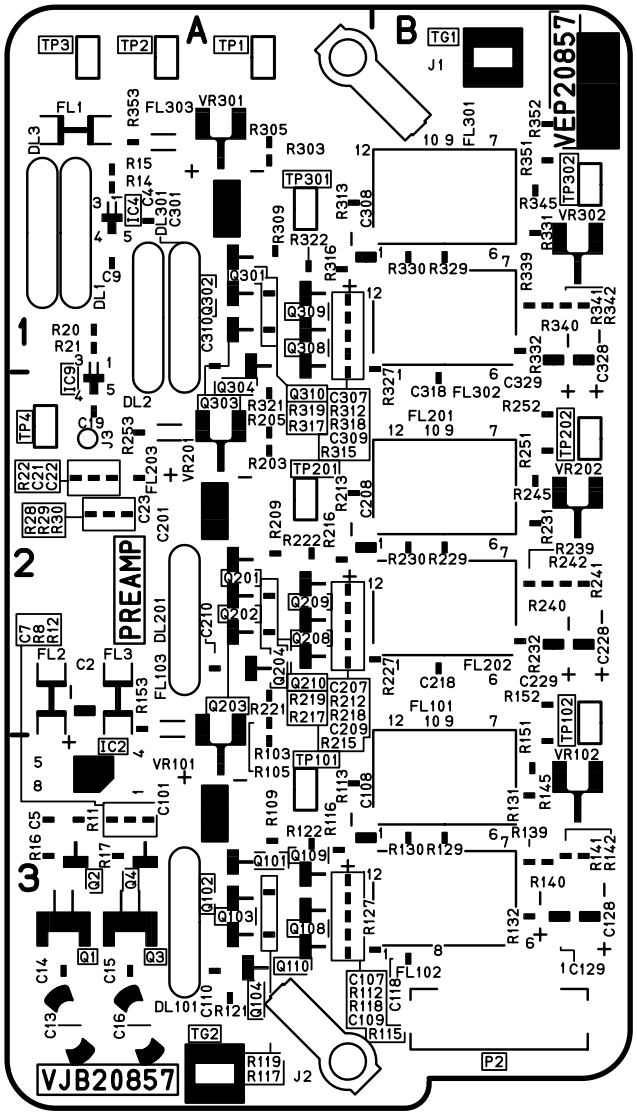
PRE AMP P.C. BOARD (VEP20857A)

COMPONENT SIDE

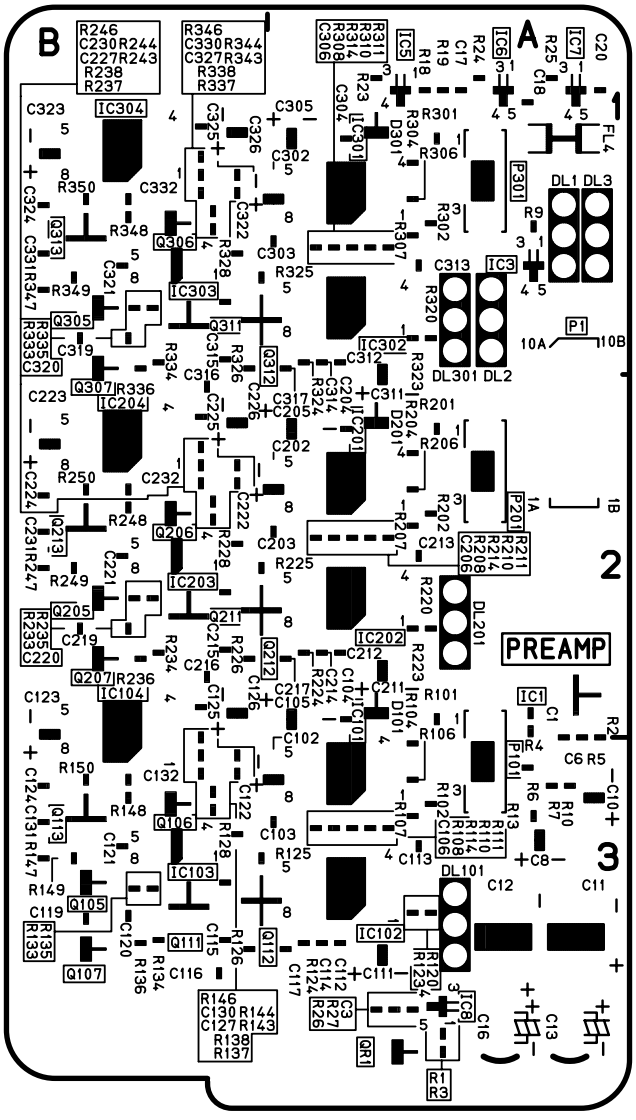
REF	LOC	REF	LOC
IC2	A3	Q303	A1
IC4	A1	Q304	A1
IC9	A2	Q308	A1
P2	B3	Q309	A1
Q1	A3	Q310	A1
Q2	A3	TG1	B1
Q3	A3	TG2	A3
Q4	A3	TP1	A1
Q101	A3	TP2	A1
Q102	A3	TP3	A1
Q103	A3	TP4	A2
Q104	A3	TP101	A3
Q108	A3	TP102	B2
Q109	A3	TP201	A2
Q110	A3	TP202	B2
Q201	A2	TP301	A1
Q202	A2	TP302	B1
Q203	A2	VR101	A2
Q204	A2	VR102	B3
Q208	A2	VR20	A2
Q209	A2	VR202	B2
Q210	A2	VR301	A1
Q301	A1	VR302	B1
Q302	A1		

FOIL SIDE

REF	LOC	REF	LOC
IC1	A2	Q107	B3
IC3	A1	Q111	B3
IC5	A1	Q112	B3
IC6	A1	Q113	B3
IC7	A1	Q205	B2
IC8	A3	Q205	B2
IC101	A3	Q207	B2
IC102	A3	Q211	B2
IC103	B3	Q212	B2
IC104	B2	Q213	B2
IC201	A2	Q305	B1
IC202	A2	Q306	B1
IC203	B2	Q307	B1
IC204	B2	Q311	B1
IC301	A1	Q312	B1
IC302	A1	Q313	B1
IC303	B1	QR1	A3
IC304	B1		
P1	A2		
P101	A3		
P201	A2		
P301	A1		
Q105	B3		
Q106	B3		



(COMPONENT SIDE)

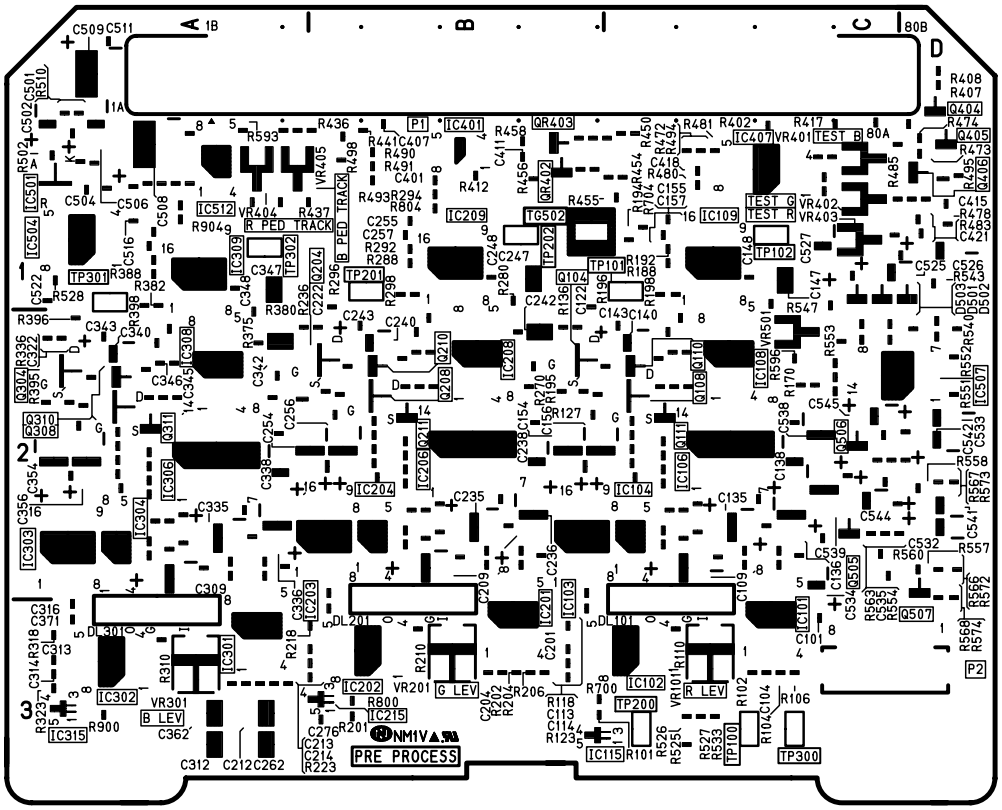


(FOIL SIDE)

PRE PROCESS P.C. BOARD (VEP23534A)

COMPONENT SIDE

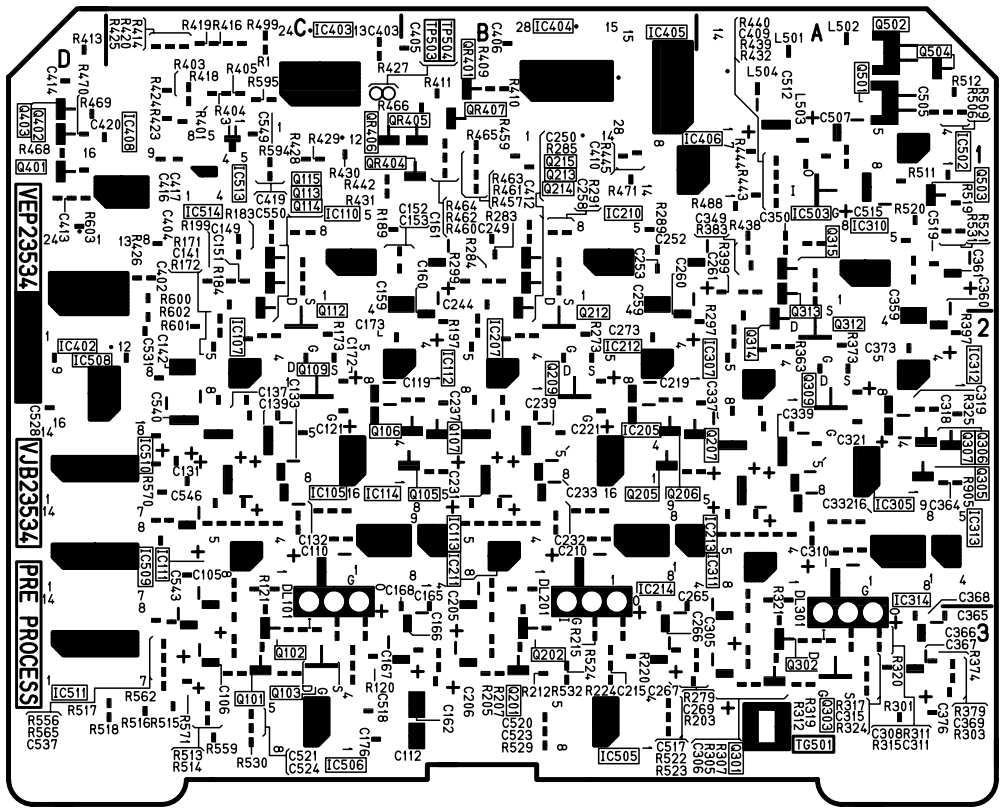
REF	LOC	REF	LOC
IC101	C3	Q311	A2
IC102	C3	Q404	D1
IC103	B2	Q405	D1
IC104	C2	Q406	D1
IC106	C2	Q505	C2
IC108	C2	Q506	C2
IC109	C1	Q507	D2
IC115	B3	QR402	B1
IC202	B3	QR403	B1
IC203	B2	TG502	B1
IC204	B2	TP100	C3
IC206	B2	TP101	C1
IC208	B2	TP102	C1
IC209	B1	TP200	C3
IC211	B3	TP201	B1
IC215	B3	TP202	B1
IC301	A3	TP300	C3
IC302	A3	TP301	A1
IC303	A2	TP302	A1
IC304	A2	VR101	C3
IC306	A2	VR201	B3
IC308	A2	VR301	A3
IC309	A1	VR401	C1
IC315	A3	VR402	C1
IC401	B1	VR403	C1
IC407	C1	VR404	A1
IC501	A1	VR405	A1
IC504	A1	VR501	C2
IC507	D2		
IC512	A1		
P1	B1		
P2	D3		
Q104	B2		
Q108	C2		
Q110	C2		
Q111	C2		
Q208	B2		
Q210	B2		
Q211	B2		
Q304	A2		
Q308	A2		
Q310	A2		



(COMPONENT SIDE)

FOIL SIDE

REF	LOC	REF	LOC
IC105	C2	Q107	B2
IC107	C2	Q109	C2
IC110	C1	Q112	C2
IC111	C2	Q113	C1
IC112	B2	Q114	C1
IC113	B2	Q115	C1
IC114	C2	Q201	B3
IC205	B2	Q202	B3
IC207	B2	Q205	B2
IC210	B1	Q206	B2
IC211	B2	Q207	A2
IC212	B2	Q209	B2
IC213	A2	Q212	B2
IC214	B2	Q213	B1
IC305	A2	Q214	B1
IC307	A2	Q215	B1
IC310	A1	Q301	A3
IC311	A2	Q302	A3
IC312	A2	Q303	A3
IC313	A2	Q306	A2
IC314	A2	Q307	A2
IC402	D1	Q312	A2
IC403	C1	Q313	A1
IC404	B1	Q314	A2
IC405	B1	Q315	A1
IC406	B1	Q401	D1
IC408	C1	Q402	D1
IC502	A1	Q403	D1
IC503	A1	Q501	A1
IC505	B3	Q502	A1
IC506	C3	Q503	A1
IC508	D2	Q504	A1
IC509	D2	QR401	B1
IC510	D2	QR404	B1
IC511	D3	QR405	B1
IC513	C1	QR406	C1
IC514	C1	QR407	B1
Q101	C3	TG501	A3
Q102	C3	TP503	C1
Q103	C3	TP504	C1
Q105	B2		
Q106	B2		

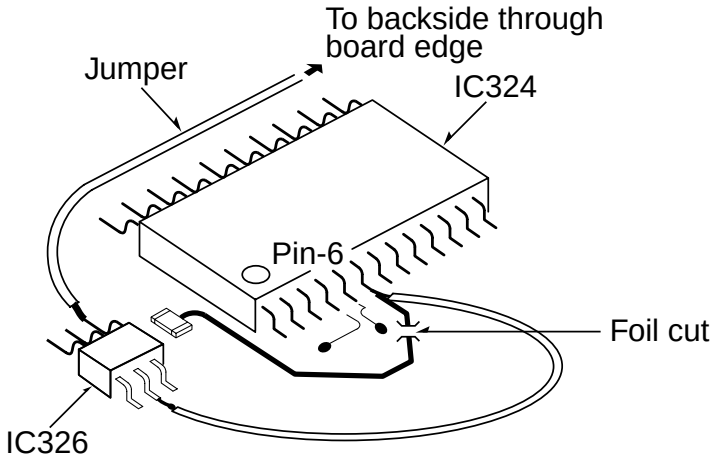


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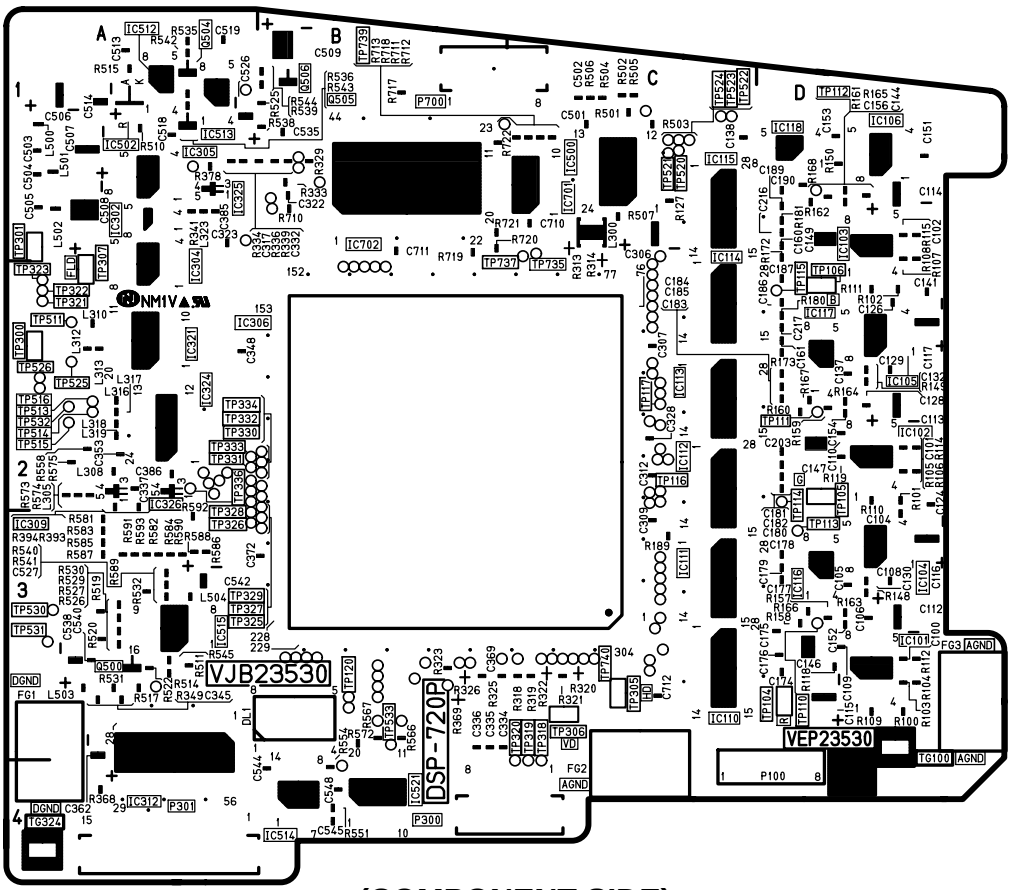
DSP MAIN P.C. BOARD (VEP23530A)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC
IC101	D3	IC701	C1	TP321	A2
IC102	D2	IC702	B1	TP322	A2
IC103	D1	P100	D4	TP325	B3
IC104	D3	P300	B4	TP326	A3
IC105	D2	P301	A4	TP327	B3
IC106	D1	P700	B1	TP328	A2
IC110	C3	Q500	A3	TP329	B2
IC111	C3	Q504	A1	TP330	B2
IC112	C2	Q505	A1	TP331	A2
IC113	C2	Q506	B1	TP332	B2
IC114	C2	TG100	D3	TP333	A2
IC115	C1	TG324	A4	TP334	B2
IC116	D3	TP104	D3	TP336	A2
IC117	D2	TP105	D2	TP511	A2
IC118	D1	TP106	D2	TP513	A2
IC302	A1	TP110	D3	TP514	A2
IC304	A2	TP111	D2	TP515	A2
IC305	A1	TP112	D1	TP516	A2
IC306	B2	TP113	D3	TP520	C1
IC309	A2	TP114	D2	TP521	C1
IC312	A3	TP115	D2	TP522	C1
IC321	A2	TP116	C2	TP523	C1
IC324	A2	TP117	C2	TP524	C1
IC325	A1	TP120	B3	TP525	A2
IC326	A2	TP300	A2	TP526	A2
IC500	C1	TP301	A1	TP530	A3
IC502	A1	TP305	C3	TP531	A3
IC512	A1	TP306	C3	TP532	A2
IC513	A1	TP307	A2	TP533	B3
IC514	B4	TP318	C3	TP735	C1
IC515	A3	TP319	C3	TP737	C1
IC521	B4	TP320	C3	TP740	C3

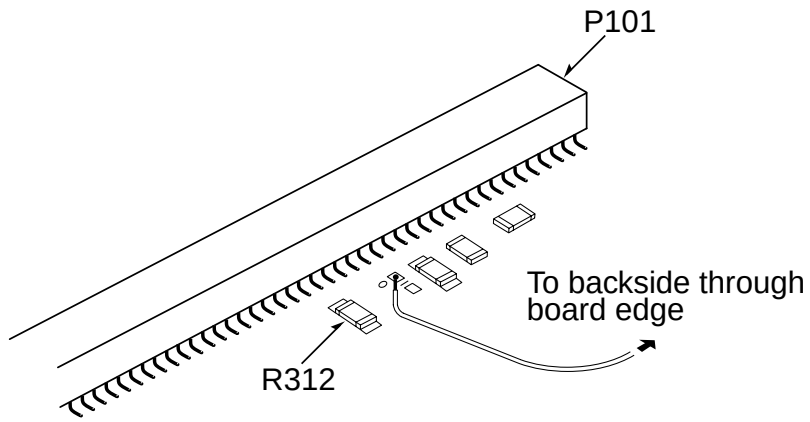


COMPONENT SIDE



(COMPONENT SIDE)

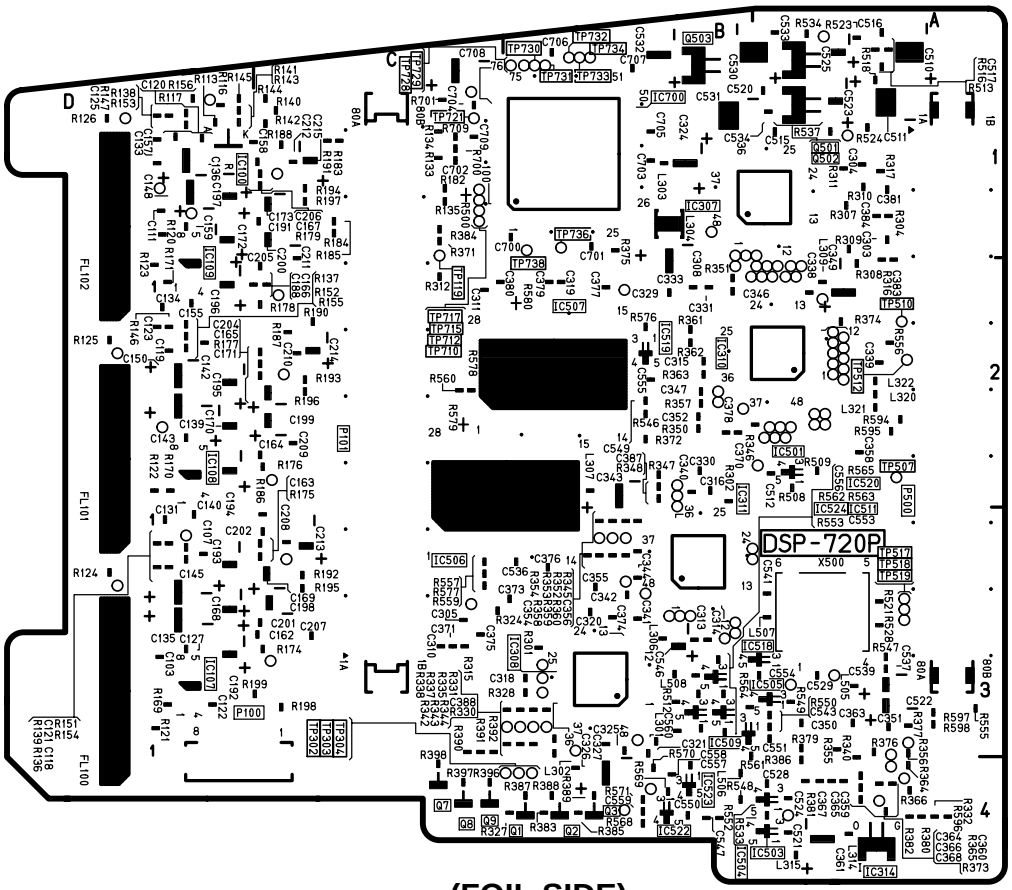
DSP MAIN P.C. BOARD (VEP23530A)



FOIL SIDE

FOIL SIDE

REF	LOC	REF	LOC
IC100	D1	Q501	A1
IC107	D3	Q502	A1
IC108	D2	Q503	B1
IC109	D2	TP119	C1
IC307	A1	TP302	B4
IC308	B3	TP303	B4
IC311	B3	TP304	B4
IC314	A4	TP510	A2
IC501	A2	TP512	A2
IC503	A4	TP517	A3
IC504	A4	TP518	A3
IC505	A3	TP519	A3
IC506	B2	TP710	C1
IC507	B2	TP712	C1
IC509	B3	TP715	C1
IC511	B3	TP717	C1
IC518	A3	TP721	C1
IC519	B2	TP728	B1
IC520	B3	TP729	B1
IC522	B4	TP730	B1
IC522	B4	TP731	B1
IC523	B4	TP732	B1
IC524	B3	TP733	B1
P100	D4	TP734	B1
P101	C2	TP736	B1
P500	A2	TP738	B1
Q1	B4		
Q2	B4		
Q3	B4		
Q7	C4		
Q8	C4		
Q9	C4		

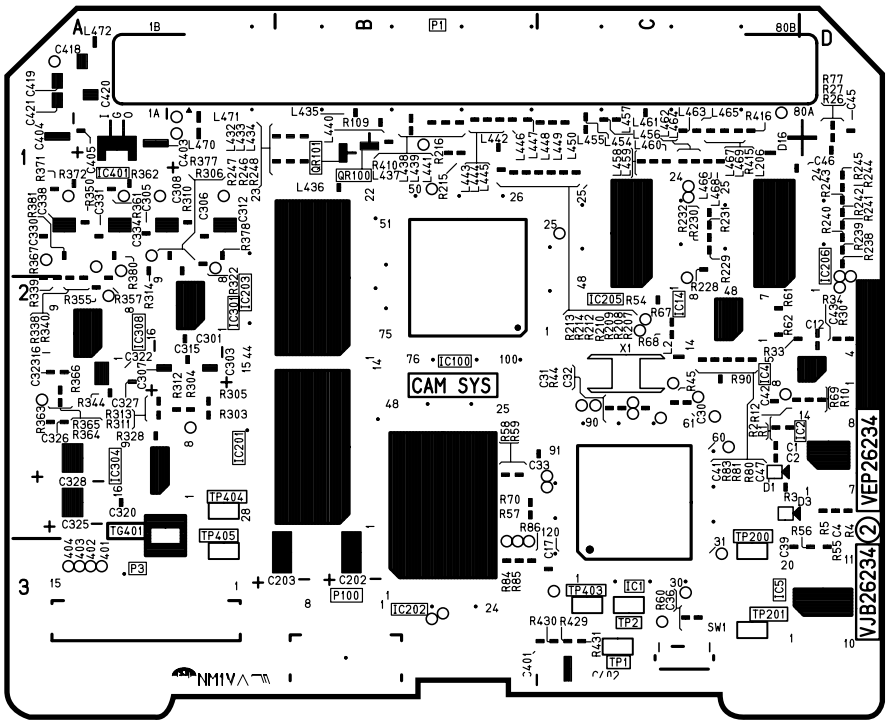


(FOIL SIDE)

CAMERA SYSCON P.C. BOARD (VEP26234B)

COMPONENT SIDE

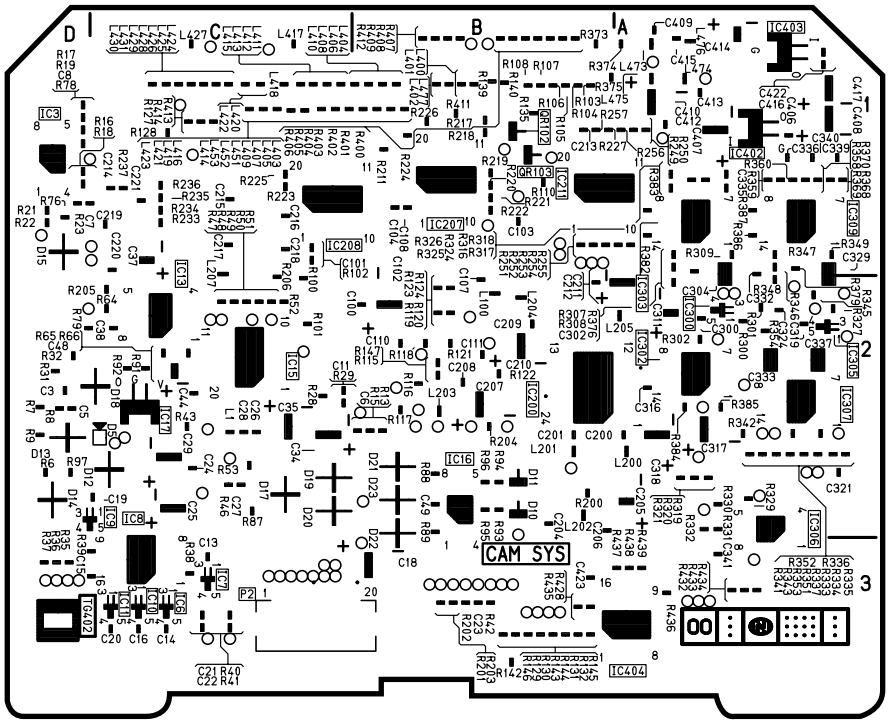
REF	LOC
IC1	C2
IC2	D2
IC4	D23
IC5	D3
IC14	C2
IC100	B2
IC201	B2
IC202	B2
IC203	B2
IC205	C1
IC206	C1
IC301	A2
IC304	A2
IC308	A2
IC401	A1
P1	B1
P3	A3
P100	B3
QR100	B1
QR101	B1
TG401	A2
TP1	C3
TP2	C3
TP200	C3
TP201	C3
TP403	C3
TP404	A2
TP405	A3



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
IC3	D1
IC6	C3
IC7	C3
IC8	C3
IC9	C2
IC10	C3
IC11	C3
IC13	C2
IC15	C2
IC16	B2
IC17	C2
IC200	B2
IC207	B1
IC208	C1
IC211	B1
IC300	A2
IC302	A2
IC303	A1
IC305	A2
IC306	A2
IC307	A2
IC309	A1
IC402	A1
IC403	A1
IC404	A3
P2	C3
QR102	B1
QR103	B1
TG402	D3

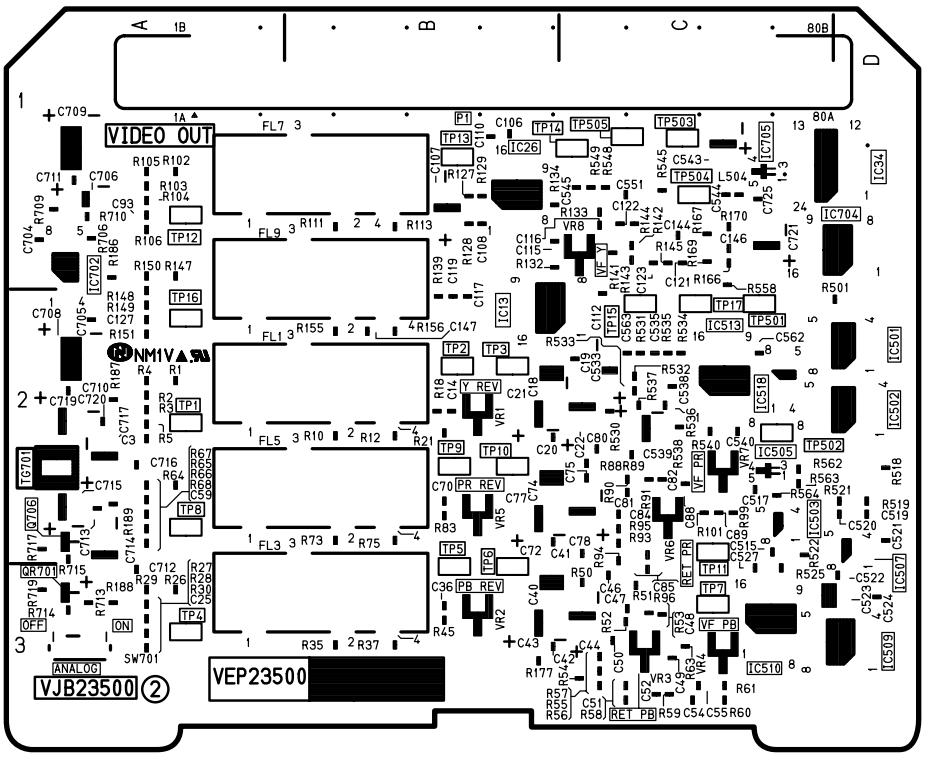


(FOIL SIDE)

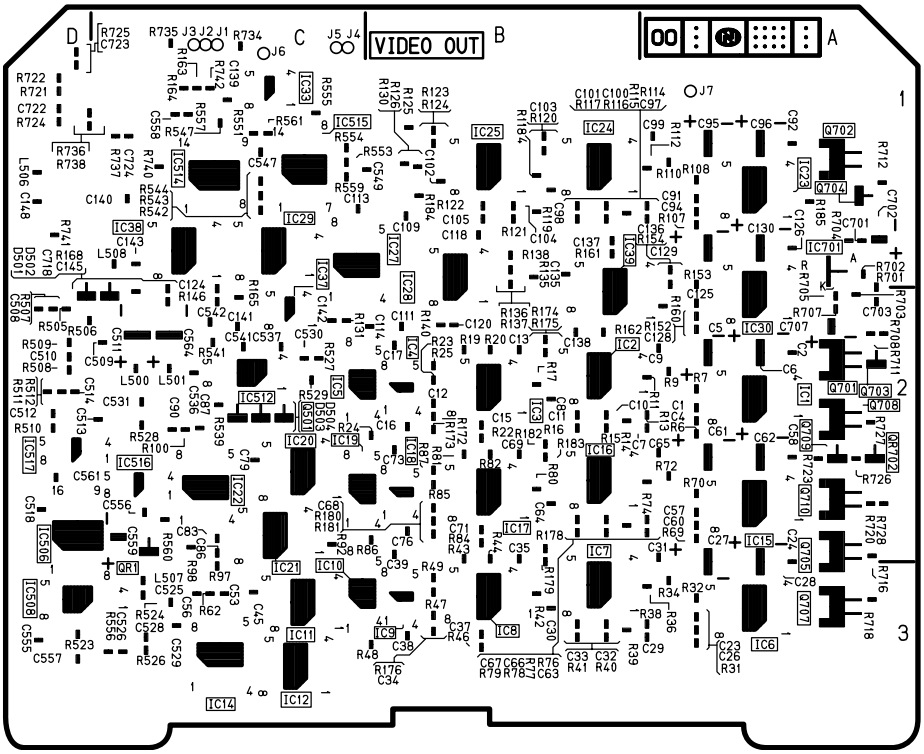
VIDEO OUT P.C. BOARD (VEP23500B)

COMPONENT SIDE

REF	LOC
IC13	B2
IC26	B1
IC34	D1
IC501	D2
IC502	D2
IC503	C2
IC505	C2
IC507	D2
IC509	D3
IC510	C3
IC513	C2
IC518	C2
IC702	A1
IC704	D1
IC705	C1
P1	B1
Q706	A2
QR701	A3
TG701	A2
TP1	A2
TP2	B2
TP3	B2
TP4	A3
TP5	B3
TP6	B3
TP7	C3
TP8	A2
TP9	B2
TP10	B2
TP11	C2
TP12	A1
TP13	B1
TP14	C1
TP15	C2
TP16	A2
TP17	C2
TP501	C2
TP502	C2
TP503	C1
TP504	C1
TP505	C1
VR1	B2
VR2	B3
VR3	C3
VR4	C3
VR5	B2
VR6	C2
VR7	C2
VR8	C1



(COMPONENT SIDE)



(FOIL SIDE)

FOIL SIDE

REF	LOC
IC1	A2
IC2	B2
IC3	B2
IC4	B2
IC5	C2
IC6	A3
IC7	B3
IC8	B3
IC9	B3
IC10	C3
IC11	C3
IC12	C3
IC14	C3
IC15	A2
IC16	B2
IC17	B2
IC18	B2
IC19	C2
IC20	C2
IC21	C2
IC22	C2
IC23	A1
IC24	B1
IC25	B1
IC27	C1
IC28	B1
IC29	C1
IC30	A2
IC33	C1
IC37	C2
IC38	C1
IC39	B1
IC506	D2
IC508	D3
IC512	C2
IC514	C1
IC515	C1
IC516	C2
IC517	D2
IC701	A1
Q501	C2
Q701	A2
Q702	A1
Q703	A2
Q704	A1
Q705	A2
Q707	A3
Q708	A2
Q709	A2
Q710	A2
QR1	C2
QR702	A2

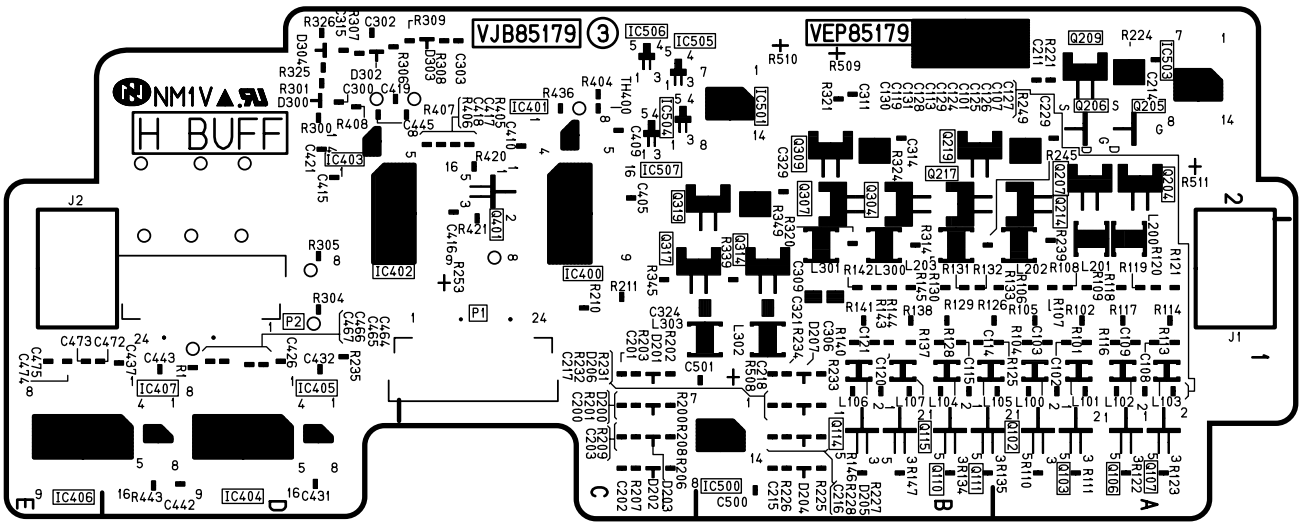
HEAD BUFF P.C. BOARD (VEP85179B)

COMPONENT SIDE

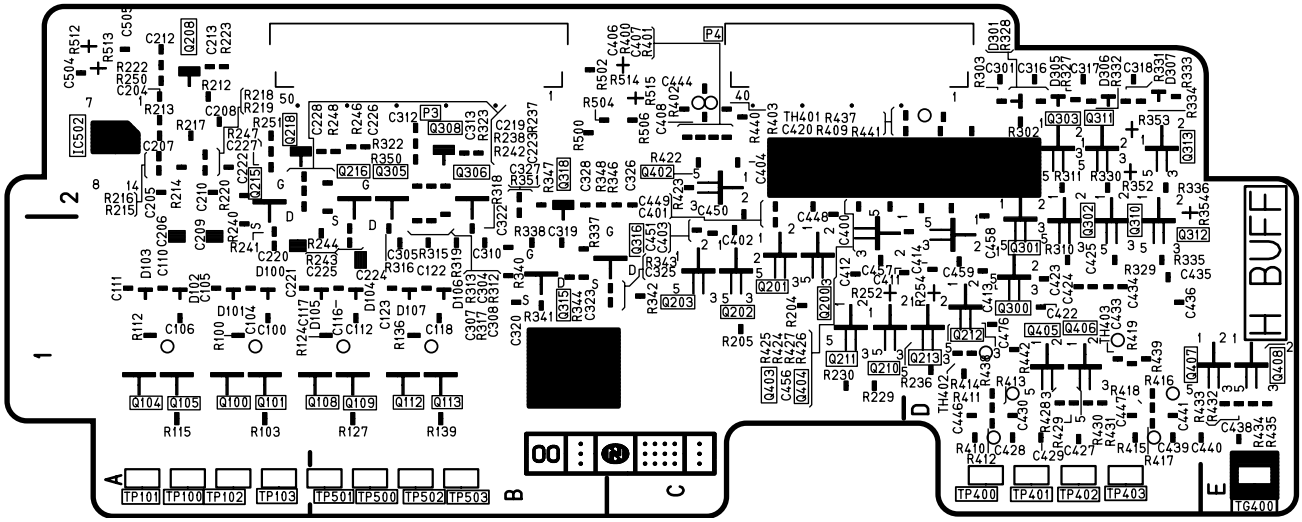
REF	LOC	REF	LOC
IC400	C1	Q110	B1
IC401	C2	Q111	B1
IC402	C1	Q114	B1
IC403	D2	Q115	B1
IC404	D1	Q204	A2
IC405	D1	Q205	A2
IC406	E1	Q206	A2
IC407	D1	Q207	A2
IC500	B1	Q209	A2
IC501	B2	Q214	A2
IC503	A2	Q217	B2
IC504	C2	Q219	B2
IC505	C2	Q304	B2
IC506	C2	Q307	B2
P1	C1	Q309	B2
P2	D1	Q314	B1
Q102	A1	Q317	B1
Q103	A1	Q319	B2
Q106	A1	Q401	C2
Q107	A1		

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC
IC502	A2	Q215	A2	Q405	D1
P3	B2	Q216	B2	Q406	D1
P4	C2	Q218	A2	Q407	E1
Q100	A1	Q300	D1	Q408	E1
Q101	A1	Q301	D1	TG400	E1
Q104	A1	Q302	D1	TP100	A1
Q105	A1	Q303	D2	TP101	A1
Q108	B1	Q305	B2	TP102	A1
Q109	B1	Q306	B2	TP103	A1
Q112	B1	Q308	B2	TP400	D1
Q113	B1	Q310	D1	TP401	D1
Q200	C1	Q311	E2	TP402	D1
Q201	C1	Q312	D1	TP403	D1
Q202	C1	Q313	E2	TP500	B1
Q203	C1	Q315	B1	TP501	B1
Q208	A2	Q316	C1	TP502	B1
Q210	C1	Q318	B2	TP503	B1
Q211	C1	Q402	C2		
Q212	D1	Q403	C1		
Q213	D1	Q404	D1		



(COMPONENT SIDE)

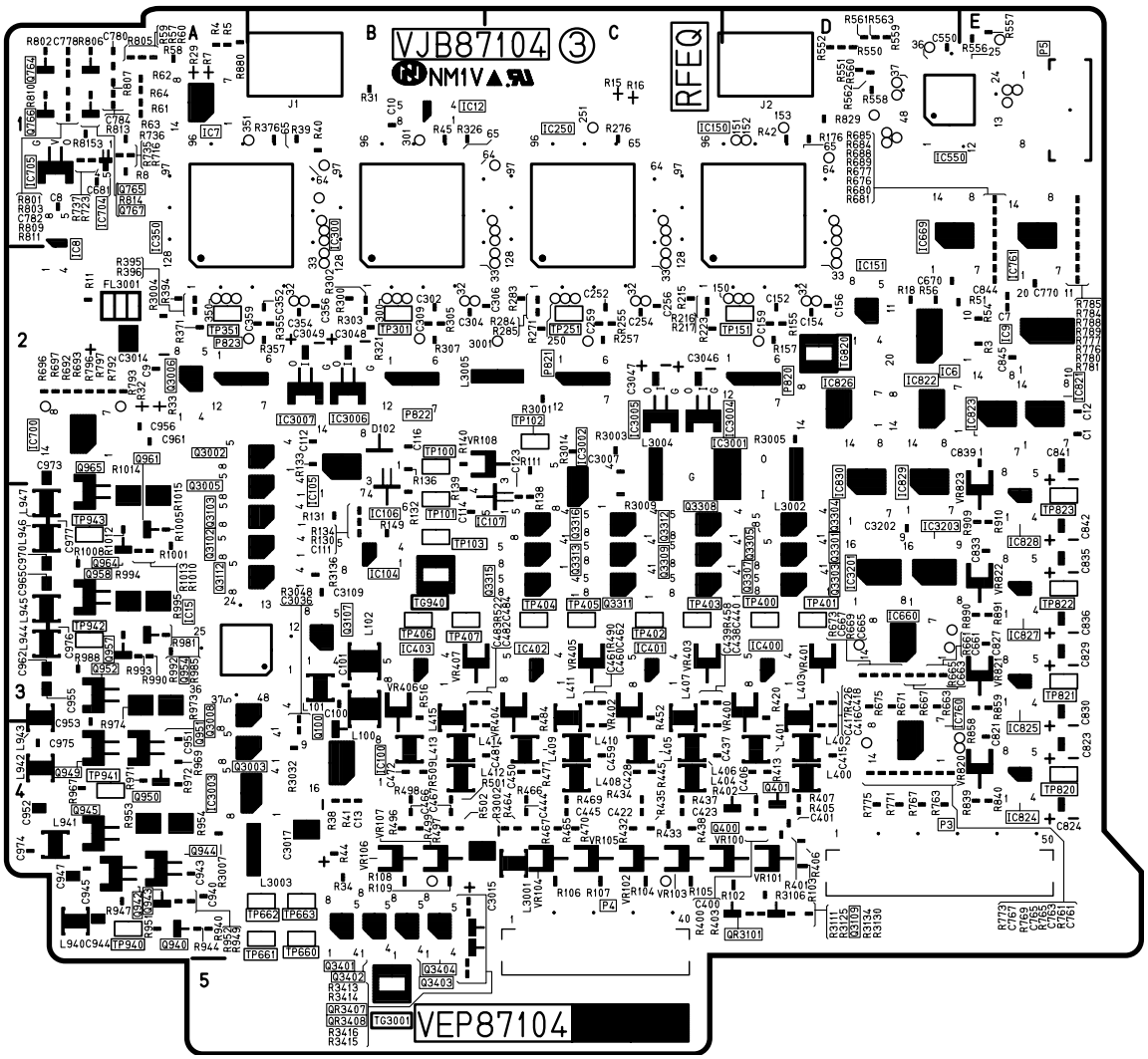


(FOIL SIDE)

RF EQ P.C. BOARD (VEP87104B)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC6	D2	IC3003	B4	IC829	D2	Q952	A3	Q3308	C3	TP400	D3	VR103	C4
IC7	A1	IC3004	C2	IC830	D2	Q957	A3	Q3309	C3	TP401	D3	VR104	C4
IC8	A1	IC3005	C2	P3	D4	Q958	A3	Q3312	C3	TP402	C3	VR105	C4
IC9	E2	IC3006	B2	P4	C4	Q961	A3	Q3313	C3	TP403	C3	VR106	B4
IC12	B1	IC3007	B2	P5	E1	Q964	A3	Q3315	C3	TP404	C3	VR107	B4
IC15	A3	IC3201	D3	P820	D2	Q965	A2	Q3316	C3	TP405	C3	VR108	B2
IC100	B4	IC3203	D3	P821	C2	Q3002	B2	Q3401	B4	TP406	B3	VR400	D3
IC104	B3	IC660	D3	P822	B2	Q3003	B4	Q3402	B4	TP407	B3	VR401	D3
IC105	B2	IC669	D1	P823	A2	Q3005	B3	Q3403	B4	TP660	B4	VR402	C3
IC106	B3	IC669	D2	Q100	B4	Q3006	A2	Q3404	B4	TP661	B4	VR403	C3
IC107	C3	IC700	A2	Q600	D4	Q3006	A2	QR3101	D4	TP662	B4	VR404	C3
IC150	D1	IC704	A1	Q601	D4	Q3008	A3	QR3407	B4	TP663	B4	VR405	C3
IC151	D2	IC705	A1	Q764	A1	Q3102	B3	QR3408	B4	TP820	E4	VR406	B3
IC250	C1	IC760	D4	Q765	A1	Q3103	B3	TG3001	B5	TP821	E3	VR407	B3
IC300	B1	IC761	E1	Q766	A1	Q3107	B3	TG820	D2	TP822	E3	VR821	E3
IC350	A1	IC821	E2	Q940	A4	Q3109	D4	TG940	B3	TP823	E3	VR822	E3
IC400	D3	IC822	D2	Q943	A4	Q3112	B3	TP100	B2	TP940	A4	VR823	E2
IC401	C3	IC823	E2	Q944	B4	Q3112	C3	TP101	B3	TP941	A4		
IC402	C3	IC824	E4	Q945	A4	Q3301	D3	TP103	B3	TP942	A3		
IC403	B3	IC825	E3	Q947	A4	Q3303	D3	TP151	D2	TP943	A3		
IC550	D1	IC826	D2	Q949	A4	Q3304	D3	TP251	C2	VR100	D4		
IC3001	D2	IC827	E3	Q950	A4	Q3305	C3	TP301	B2	VR101	D4		
IC3002	C2	IC828	E3	Q951	A4	Q3307	C3	TP351	A2	VR102	C4		

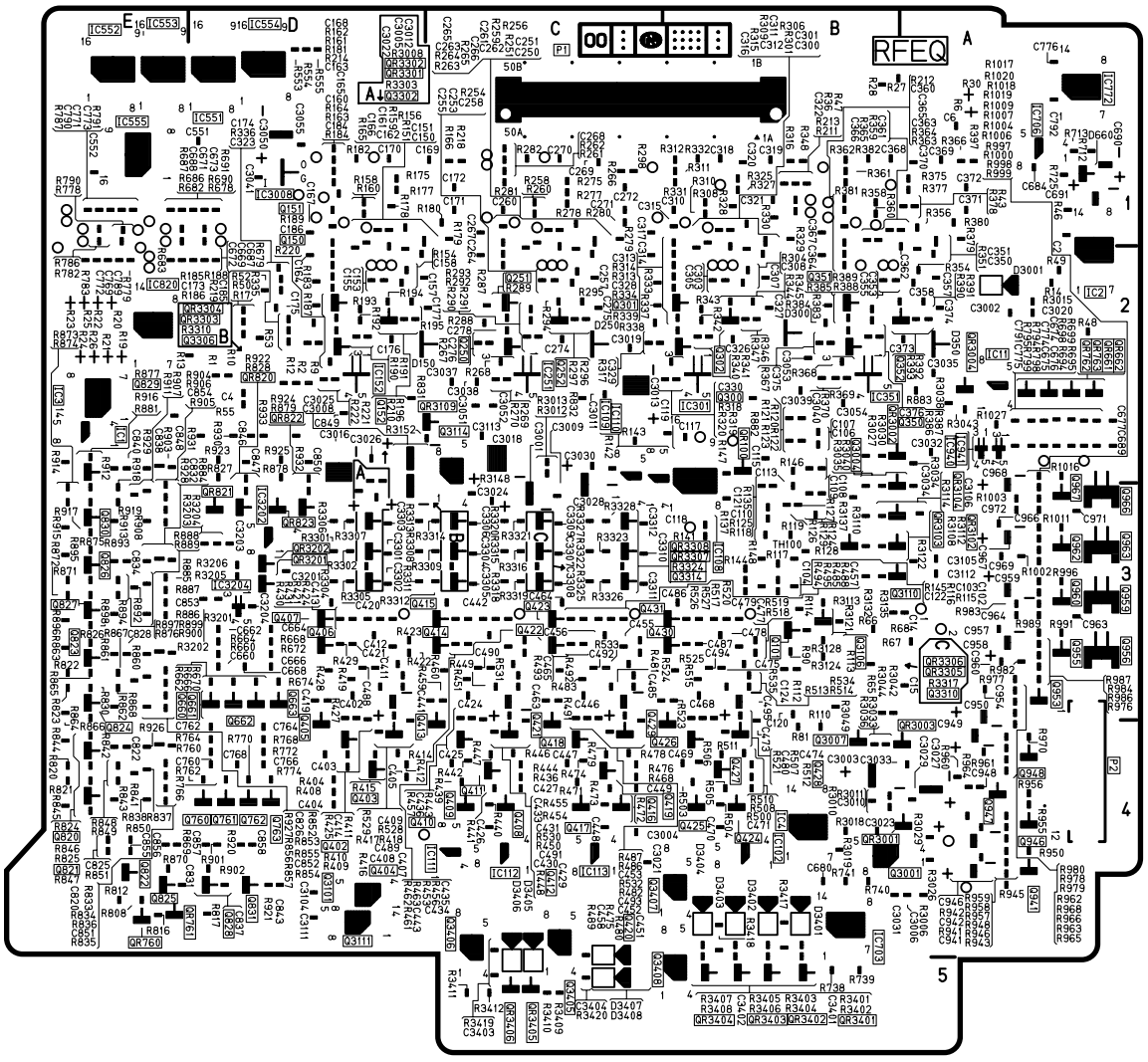


(COMPONENT SIDE)

RF EQ P.C. BOARD (VEP87104B)

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC1	E2	IC772	A1	Q603	D4	Q628	B4	Q831	D4	Q3306	C3	QR3306	C3
IC2	A2	IC820	E2	Q604	D4	Q629	B4	Q941	A4	Q3310	C3	QR3307	C3
IC3	E2	IC940	A2	Q605	D4	Q630	B3	Q946	A4	Q3314	C3	QR3401	B5
IC4	B4	IC941	A2	Q606	D3	Q631	B3	Q947	A4	Q3405	C5	QR3402	B5
IC11	A2	IC3008	D1	Q607	D3	Q660	D3	Q948	A4	Q3406	C4	QR3403	B5
IC102	B4	IC3202	D3	Q608	C4	Q661	D3	Q953	A3	Q3407	B4	QR3404	B4
IC108	B2	IC3204	D3	Q609	C4	Q662	D3	Q955	A3	Q3408	B4	QR3405	C5
IC109	C2	P1	C1	Q612	C4	Q663	D3	Q956	A3	QR100	B2	QR3406	C5
IC110	C2	P2	A4	Q613	D4	Q760	D4	Q959	A3	QR3002	B2	QR661	A2
IC111	C4	Q61	C4	Q614	C3	Q761	D4	Q960	A3	QR3004	A2	QR662	A2
IC112	C4	Q101	B3	Q615	C3	Q762	D4	Q962	A3	QR3102	B3	QR760	E4
IC113	C4	Q125	D2	Q616	C4	Q763	D4	Q963	A3	QR3103	B3	QR761	E4
IC152	D2	Q150	D2	Q617	C4	Q820	E4	Q966	A3	QR3109	C2	QR762	A2
IC251	C2	Q151	D2	Q618	C4	Q821	E4	Q967	A3	QR3201	D3	QR763	A2
IC301	B2	Q250	C2	Q619	C4	Q822	E4	Q3001	B4	QR3202	D3	QR821	D3
IC351	B2	Q251	C2	Q620	C4	Q823	E3	Q3004	B3	QR3301	A4	QR822	D2
IC551	D1	Q301	B2	Q621	C4	Q824	E3	Q3004	B2	QR3301	D3	QR822	D3
IC552	E1	Q302	B2	Q622	C3	Q825	E4	Q3101	D4	QR3302	D3	QR823	D3
IC553	E1	Q252	C2	Q623	C3	Q826	E3	Q3106	B3	QR3302	C3		
IC554	D1	Q350	B2	Q624	B4	Q827	E3	Q3110	B3	QR3303	A4		
IC555	E1	Q351	B2	Q625	B4	Q828	D4	Q3111	D4	QR3303	C3		
IC703	B4	Q352	B2	Q626	B4	Q829	E2	Q3114	C2	QR3305	C3		
IC706	A1	Q602	D4	Q627	B4	Q830	E3	Q3302	D3	QR3305	C3		

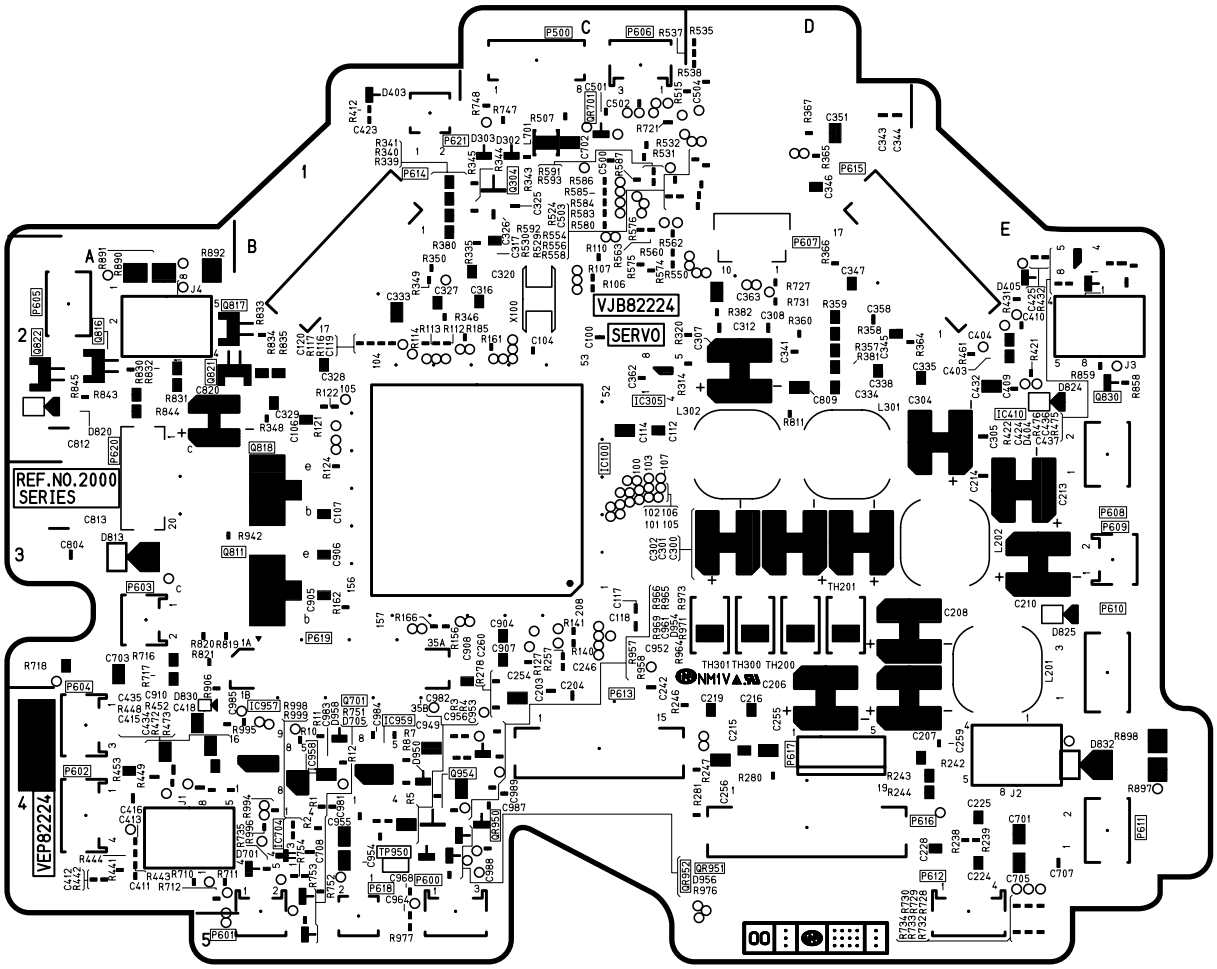


(FOIL SIDE)

SERVO P.C. BOARD (VEP82224A)

COMPONENT SIDE

REF	LOC	REF	LOC
IC2100	C3	P2615	D1
IC2305	C2	P2616	D4
IC2410	E2	P2617	D4
IC2704	B4	P2618	B4
IC2957	B4	P2619	B3
IC2958	B4	P2620	A2
IC2959	B4	P2621	B1
P2500	C1	Q2304	C1
P2600	B4	Q2701	B4
P2601	B4	Q2811	B3
P2602	A4	Q2816	A2
P2603	A3	Q2817	A2
P2604	A4	Q2818	B3
P2605	A2	Q2821	A2
P2606	C1	Q2822	A2
P2607	D1	Q2830	E2
P2608	E2	Q2954	B4
P2609	E3	QR2701	C1
P2610	E3	QR2950	C4
P2611	E4	QR2951	C4
P2612	E4	RQ2952	B4
P2613	C4	TP2950	B4
P2614	B1		

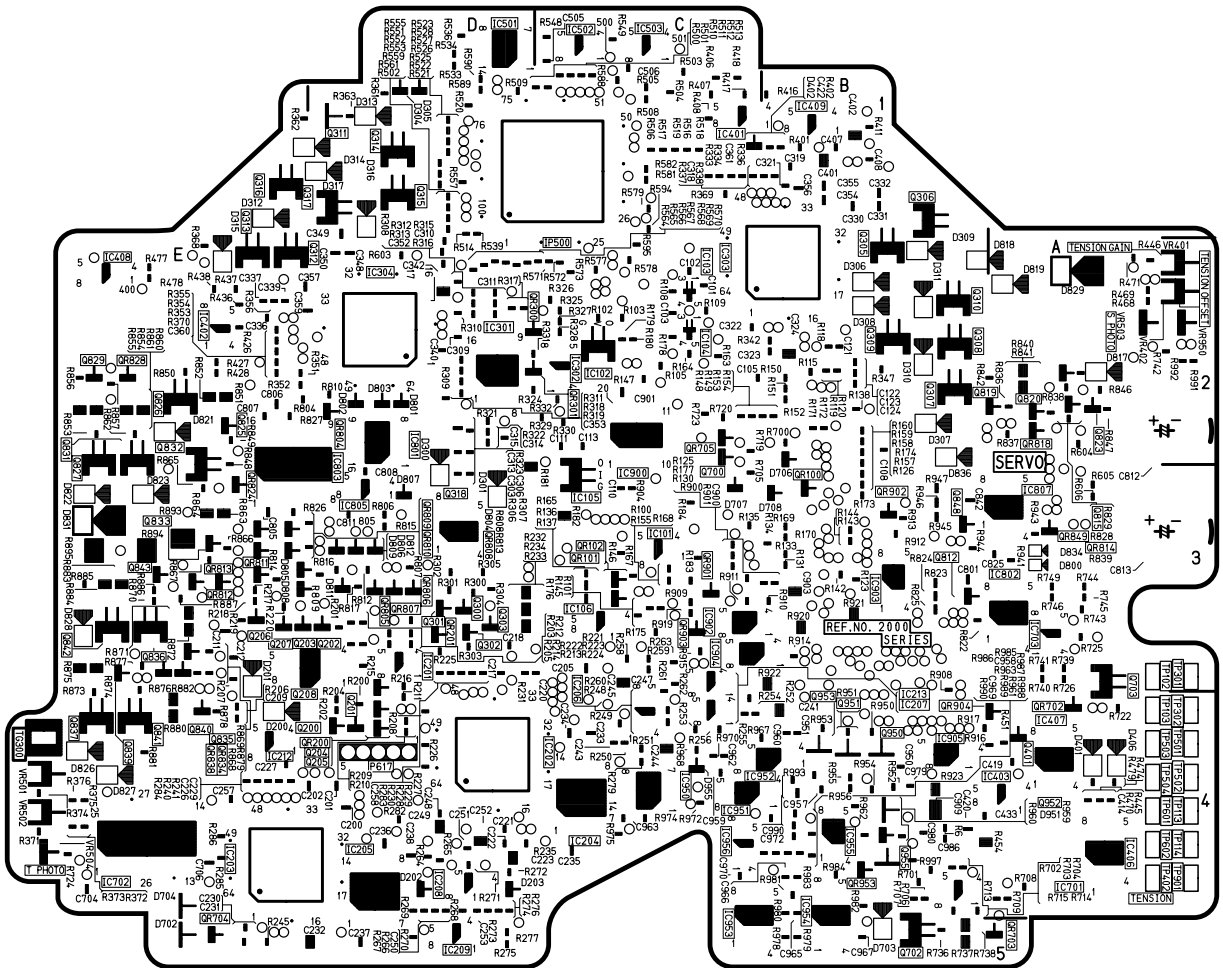


(COMPONENT SIDE)

SERVO P.C. BOARD (VEP82224A)

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC2101	C3	IC2703	A3	Q2306	B1	Q2842	E3	QR2953	B4
IC2102	C2	IC2801	D2	Q2307	B2	Q2843	E3	QR702	A4
IC2103	C2	IC2802	A3	Q2308	B2	Q2856	E2	QR705	C2
IC2104	C2	IC2803	D2	Q2309	B2	Q2950	B4	QR814	A3
IC2105	C3	IC2805	D3	Q2310	B2	Q2951	B4	QR849	A3
IC2109	C3	IC2807	A3	Q2311	D1	Q2952	A4	TG2300	E4
IC2201	D3	IC2831	E2	Q2312	E2	Q2953	B4	TP2102	A3
IC2202	D4	IC2900	C2	Q2313	E2	Q2955	B4	TP2103	A4
IC2203	E4	IC2902	C3	Q2314	D1	QR2100	B3	TP2113	A4
IC2204	C4	IC2903	B3	Q2315	D1	QR2101	C3	TP2114	A4
IC2205	D4	IC2904	C3	Q2316	E1	QR2102	C3	TP2301	A3
IC2206	C4	IC2905	B4	Q2317	D1	QR2200	D4	TP2302	A4
IC2207	C4	IC2950	C4	Q2318	D3	QR2201	D3	TP2402	A4
IC2208	D4	IC2951	C4	Q2401	A4	QR2300	D2	TP2501	A4
IC2209	D5	IC2952	B4	Q2700	C2	QR2301	C2	TP2502	A4
IC2212	E4	IC2953	C4	Q2702	B5	QR2703	A5	TP2503	A4
IC2213	C4	IC2954	B4	Q2703	A3	QR2704	D5	TP2504	A4
IC2301	D2	IC2955	B4	Q2815	A2	QR2804	D2	TP2601	A4
IC2302	C2	IC2956	C4	Q2819	A2	QR2805	D3	TP2602	A4
IC2303	B2	IP2500	C1	Q2820	A2	QR2806	D3	TP2901	A4
IC2304	D2	Q2200	D4	Q2823	A2	QR2807	D3	VR2401	A2
IC2401	C1	Q2201	D4	Q2824	E3	QR2808	D3	VR2402	A2
IC2402	E2	Q2202	D3	Q2825	E2	QR2809	D3	VR2501	E4
IC2403	A4	Q2203	E3	Q2827	E2	QR2810	D3	VR2502	E4
IC2406	A4	Q2204	D4	Q2828	E2	QR2811	E3	VR2504	E4
IC2407	A4	Q2205	D4	Q2829	E2	QR2813	E3		
IC2408	E2	Q2206	E3	Q2832	E2	QR2818	A2		
IC2409	B1	Q2207	E3	Q2833	E3	QR2834	E3		
IC2501	D1	Q2300	D3	Q2835	E3	QR2838	E3		
IC2502	C1	Q2301	D3	Q2836	E3	QR2901	C3		
IC2503	C1	Q2302	D3	Q2837	E4	QR2902	B3		
IC2701	A4	Q2303	D3	Q2840	E4	QR2903	C3		
IC2702	E4	Q2305	B2	Q2841	E4	QR2904	B4		

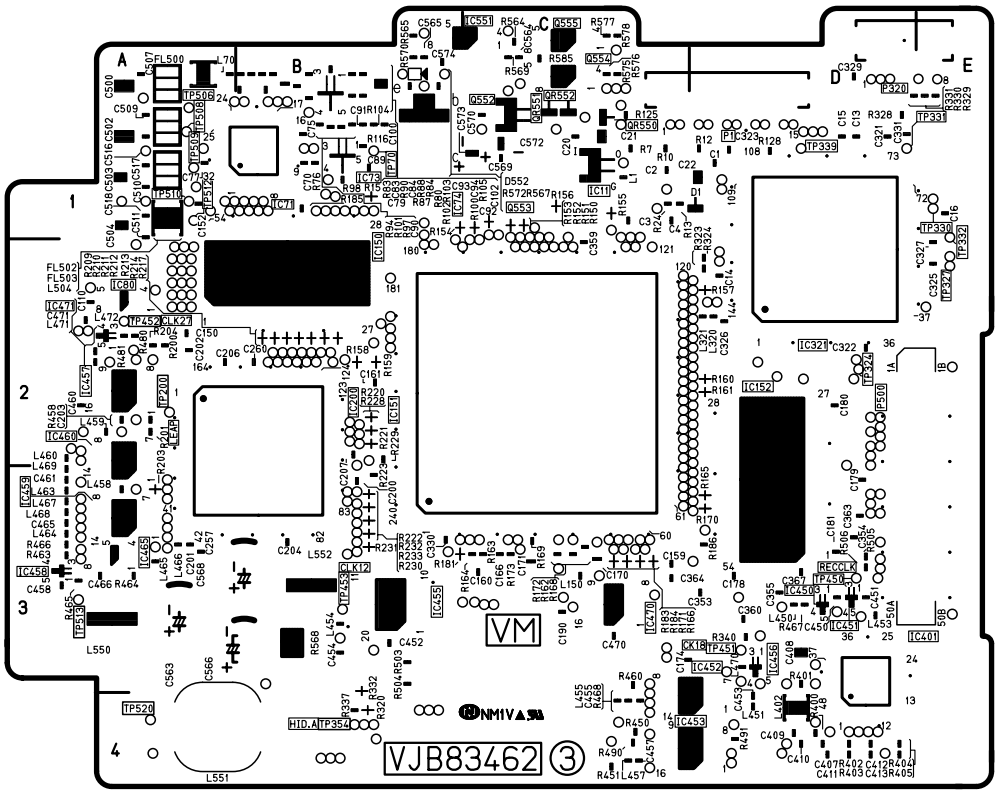


(FOIL SIDE)

VIDEO MAIN P.C. BOARD (VEP83462B)

COMPONENT SIDE

REF	LOC	REF	LOC
IC11	C1	Q552	C1
IC71	B1	Q553	B1
IC73	B1	Q554	C1
IC74	B1	Q555	C1
IC80	A2	QR550	C1
IC150	B2	QR551	C1
IC151	C2	QR552	C1
IC152	D2	TP70	B1
IC200	B2	TP200	A2
IC321	D2	TP324	D2
IC401	D3	TP327	E2
IC450	D3	TP330	E1
IC451	D3	TP331	D1
IC452	D4	TP332	E1
IC453	D4	TP339	D1
IC455	B3	TP354	B4
IC456	D3	TP450	D3
IC457	A2	TP451	D3
IC458	A3	TP452	A2
IC459	A3	TP453	B3
IC460	A2	TP506	A1
IC465	A3	TP508	A1
IC470	C3	TP509	A1
IC471	A2	TP510	A1
IC551	C1	TP512	A1
P1	D1	TP513	A3
P320	D1	TP520	A4
P500	D3		

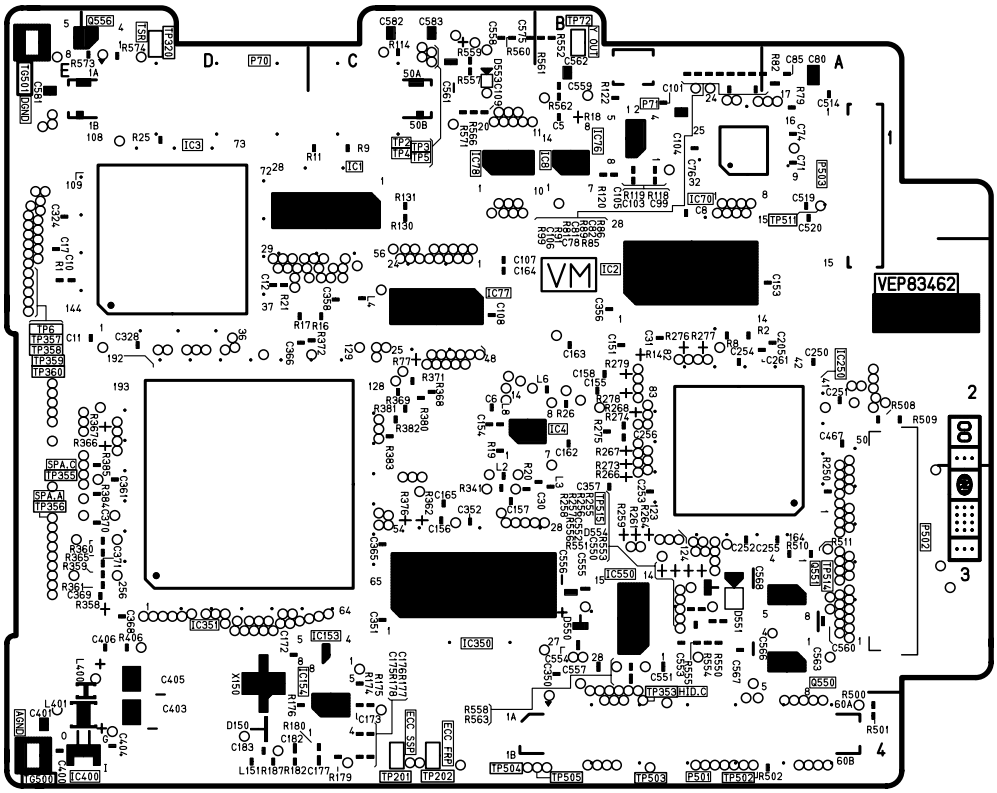


(COMPONENT SIDE)

VIDEO MAIN P.C. BOARD (VEP83462B)

FOIL SIDE

REF	LOC	REF	LOC
IC1	C1	TP5	C1
IC2	B2	TP6	E2
IC3	D1	TP72	B1
IC4	B2	TP201	C4
IC8	B1	TP202	C4
IC70	B1	TP320	D1
IC76	B1	TP353	B4
IC77	C2	TP355	E3
IC78	C1	TP356	E3
IC153	C3	TP357	E2
IC154	C4	TP358	E2
IC250	A2	TP359	E2
IC350	C3	TP360	E2
IC351	D3	TP501	B4
IC400	D4	TP502	B4
IC550	B3	TP503	B4
P70	D1	TP504	C4
P71	B1	TP505	B4
P502	A3	TP511	A1
P503	A1	TP514	A3
Q550	A3	TP515	B3
Q551	A3		
Q556	D1		
TG500	E4		
TG501	E1		
TP2	C1		
TP3	C1		
TP4	C1		

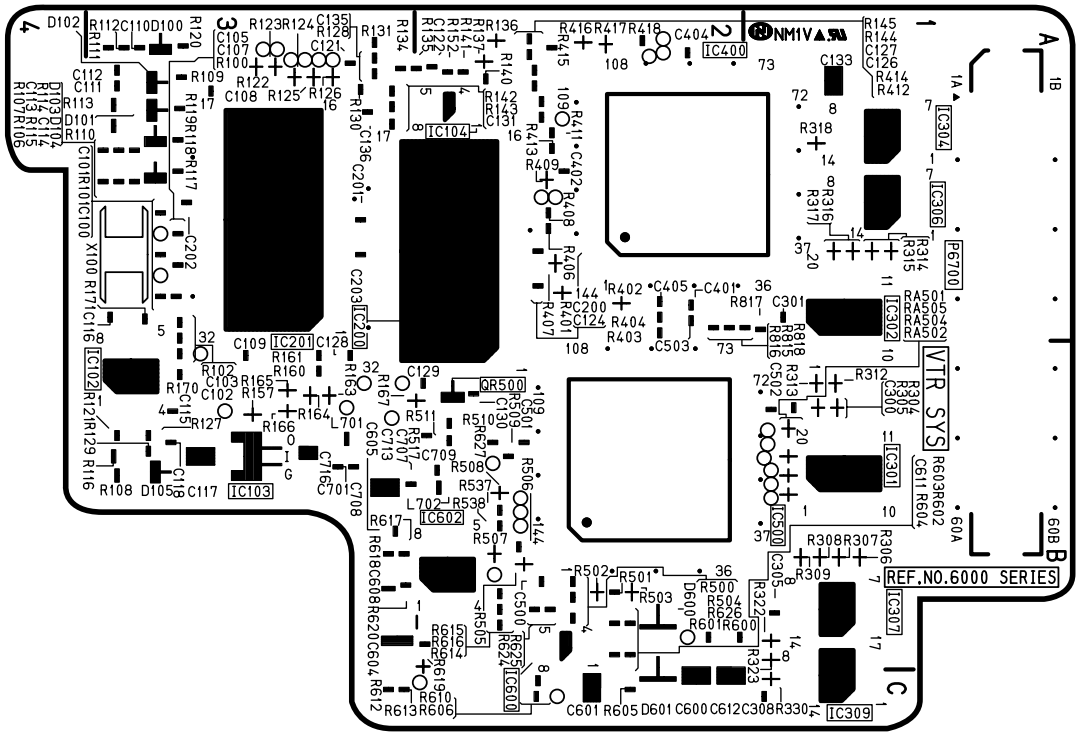


(FOIL SIDE)

VTR SYSCON P.C. BOARD (VEP86303B)

COMPONENT SIDE

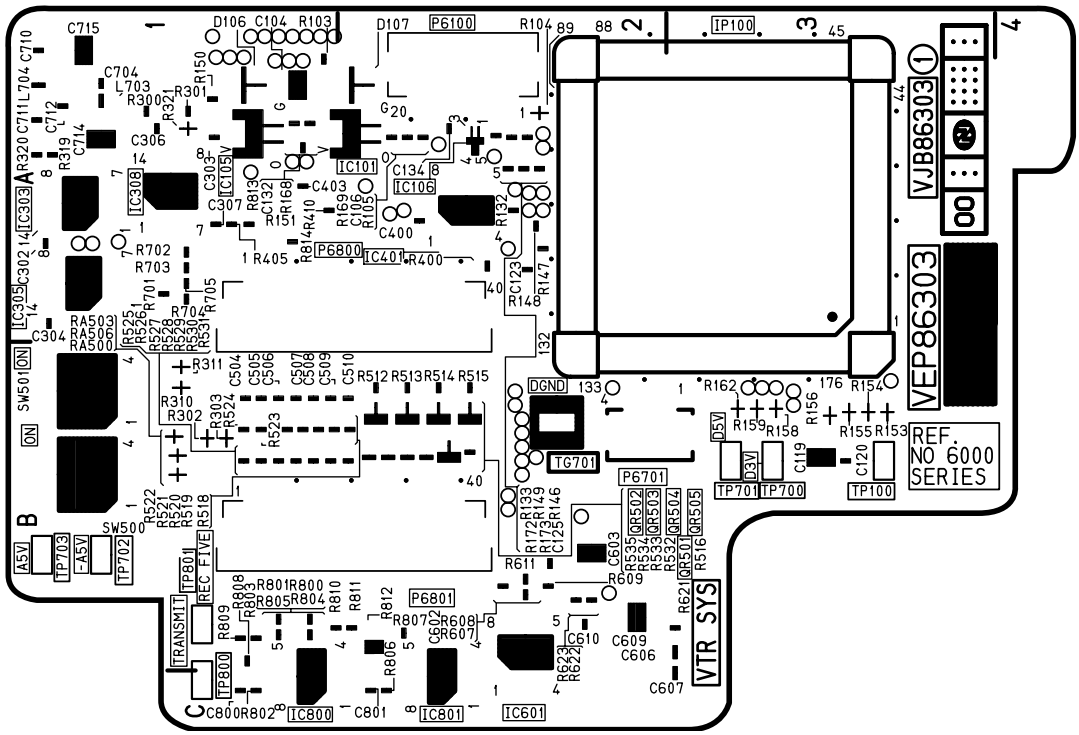
REF	LOC
IC6102	B3
IC6103	B3
IC6104	A2
IC6200	B2
IC6201	A3
IC6301	B1
IC6302	A1
IC6304	A1
IC6306	A1
IC6307	B1
IC6309	C1
IC6400	A2
IC6500	B2
IC6600	B2
IC6602	B2
P6700	A1
QR500	B2



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
IC6101	A2
IC6102	A1
IC6109	A2
IC6302	A1
IC6303	A1
IC6308	A1
IC6401	A2
IC6800	C1
IC6801	C2
IC6901	B2
IP100	A3
P6100	A2
P6701	B2
P6800	A1
P6801	B2
SW200	B1
SW201	B1
TG701	B2
TP100	B3
TP700	B3
TP701	B3
TP800	C1

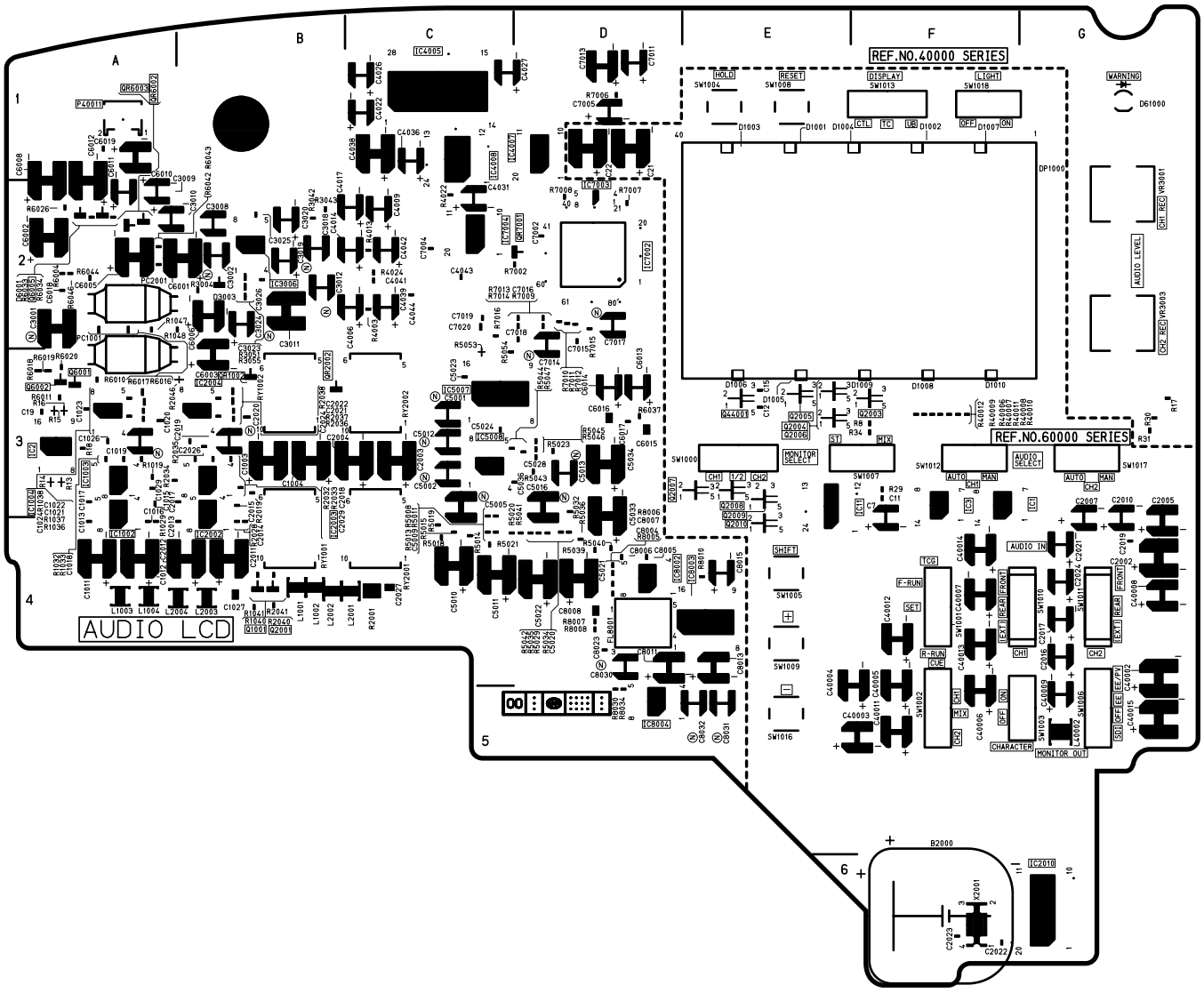


(FOIL SIDE)

AUDIO LCD P.C. BOARD (VEP84331A)

COMPONENT SIDE

REF	LOC	REF	LOC
IC41002	A3	P40011	A1
IC41003	A3	Q41001	B4
IC41004	A3	Q42001	B4
IC42002	B3	Q46001	A3
IC42003	B3	Q46002	A3
IC42004	B3	Q46005	A2
IC43006	B2	Q62003	F3
IC44002	A3	Q62004	E3
IC44005	C1	Q62005	E3
IC44007	D1	Q62006	E3
IC44008	C1	Q62007	E3
IC45007	C3	Q62008	E3
IC45008	C3	Q62009	E3
IC47002	D2	Q62010	E3
IC47003	D2	Q64001	E3
IC47004	C2	QR41002	B3
IC48002	D4	QR42002	B3
IC48003	E4	QR46002	A1
IC48004	D5	QR46003	A1
IC60001	F3	QR47001	D2
IC60003	F3	VR3001	2G
IC60011	E3	VR3003	2G
IC62010	G6		

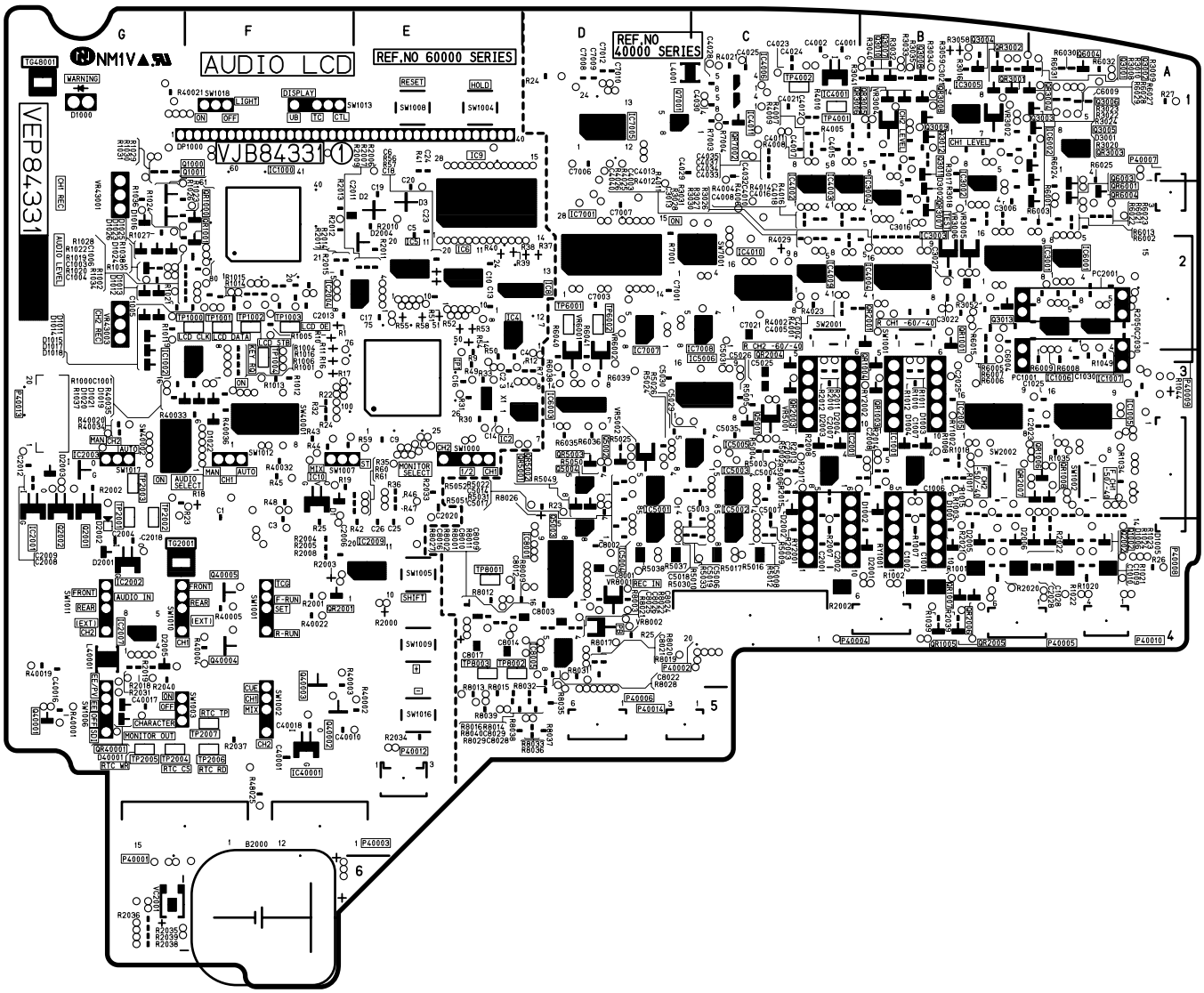


(COMPONENT SIDE)

AUDIO LCD P.C. BOARD (VEP84331A)

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC40001	F5	IC45002	C4	IC61002	F3	Q40004	F4	Q46004	A1	QR43005	B2	TP61001	F2
IC41001	B3	IC45003	C3	IC62001	F3	Q40005	F4	Q47001	D1	QR43006	B1	TP61002	F2
IC41005	A3	IC45005	C3	IC62002	F4	Q43001	A1	Q61000	G2	QR43007	B2	TP61003	F2
IC41006	A3	IC45006	C3	IC62003	F3	Q43001	B2	Q61001	G2	QR43008	B2	TP61004	F3
IC41007	A3	IC46001	A2	IC62007	F4	Q43002	A1	Q62001	F3	QR45001	D3	TP62001	F4
IC42001	C3	IC46002	A1	IC62009	E4	Q43002	B2	Q62002	F3	QR45002	D3	TP62002	F4
IC42005	B3	IC46003	D3	P40001	F5	Q43003	A1	QR40001	F5	QR45003	D3	TP62003	F3
IC43001	A2	IC47001	D2	P40002	D4	Q43004	B2	QR41001	B2	QR46001	A2	TP62004	F5
IC43001	B2	IC47005	D1	P40003	E5	Q43005	A1	QR41003	B3	QR46004	A2	TP62005	F5
IC43002	B2	IC47007	D2	P40004	C4	Q43005	B2	QR41004	B3	QR47002	C2	TP62006	F5
IC43003	B2	IC47008	C2	P40005	B2	Q43006	A1	QR41005	B4	QR62001	F4	TP62007	F5
IC43004	B2	IC48001	D4	P40006	D5	Q43007	B2	QR41006	A3	SW41002	A3	VC62001	F6
IC43005	B2	IC48002	D4	P40007	A1	Q43008	B2	QR41007	A3	TG48001	G1	VR43002	B2
IC44001	C1	IC48005	D4	P40008	A4	Q43010	B2	QR41007	B4	TG62001	F4	VR43004	B2
IC44002	C2	IC60002	E3	P40009	A3	Q43011	B2	QR41008	A3	TP44001	C1	VR43005	B2
IC44003	C2	IC60004	E2	P40010	A4	Q43012	B2	QR42001	B2	TP44002	C1	VR43006	B2
IC44004	B2	IC60005	E2	P40012	E5	Q43013	B2	QR42003	C3	TP46001	D2	VR45001	C3
IC44006	C1	IC60006	E2	P40013	F3	Q45001	C3	QR42004	C3	TP46002	D2	VR45002	D3
IC44009	C2	IC60008	D2	P40014	D5	Q45002	D3	QR42005	B4	TP48001	E4	VR46001	D3
IC44010	C2	IC60009	E1	Q40001	F5	Q45003	D4	QR42006	B4	TP48002	E4	VR46005	D3
IC44011	C1	IC60010	F3	Q40002	F5	Q45004	D3	QR43003	A1	TP48003	E4	VR48001	D4
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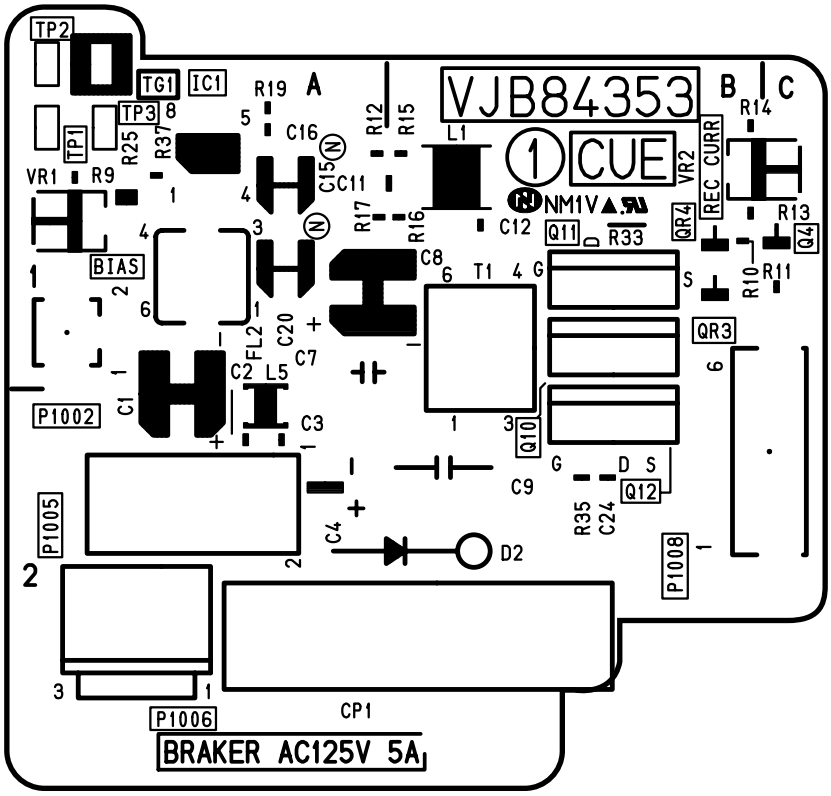


(FOIL SIDE)

CUE P.C. BOARD (VEP84353A)

COMPONENT SID

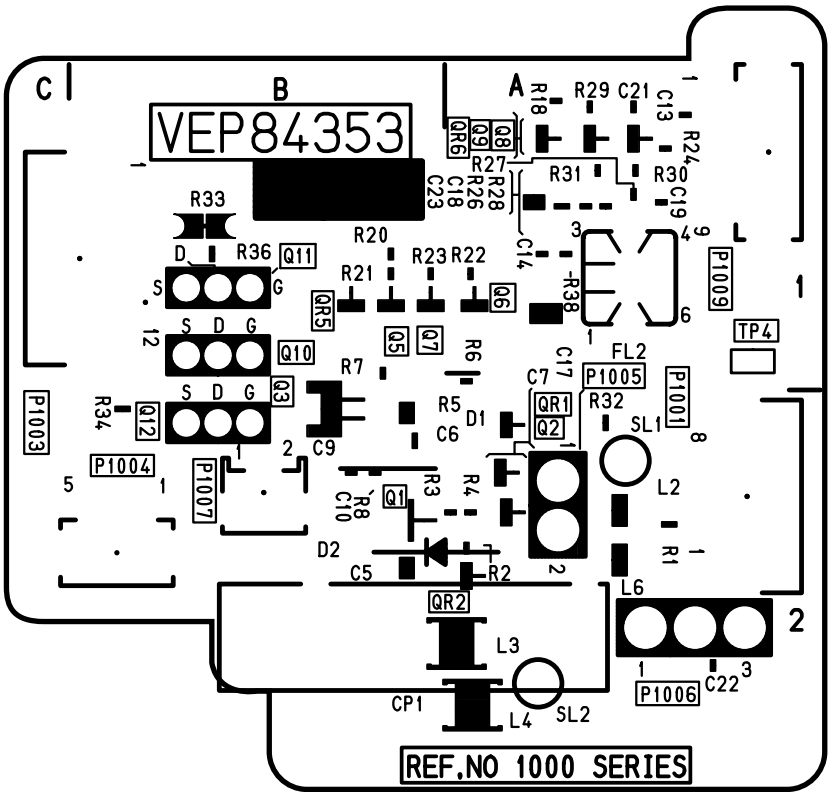
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P1002	A1
P1005	A2
P1006	A2
P1008	B2
Q1004	C1
Q1010	B1
Q1011	B1
Q1012	B2
QR1003	B1
QR1004	B1
TG1001	A1
TP1001	A1
TP1002	A1
TP1003	A1
VR1001	A1
VR1002	B1



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
P1001	A2
P1003	C1
P1004	B2
P1005	A2
P1006	A2
P1007	B2
P1009	A1
Q1001	B2
Q1002	A2
Q1003	B2
Q1005	B1
Q1006	A1
Q1007	B1
Q1008	A1
Q1009	A1
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QR1005	B1
QR1009	A1
TP1004	A1

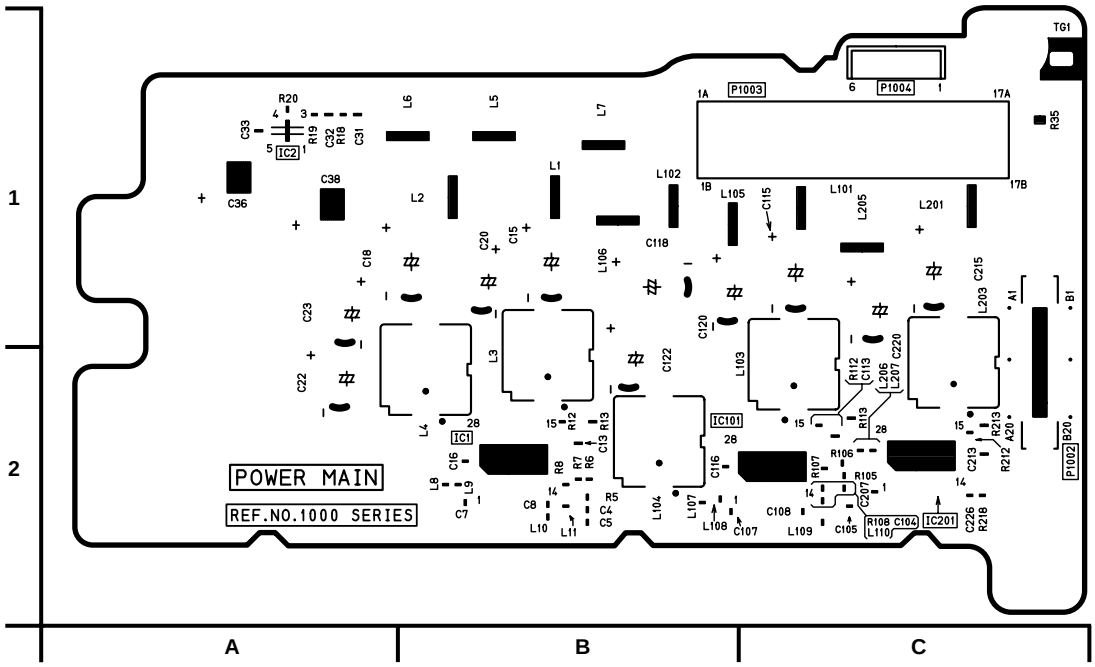


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POWER MAIN P.C. BOARD (VEP81192C)

COMPONENT SIDE

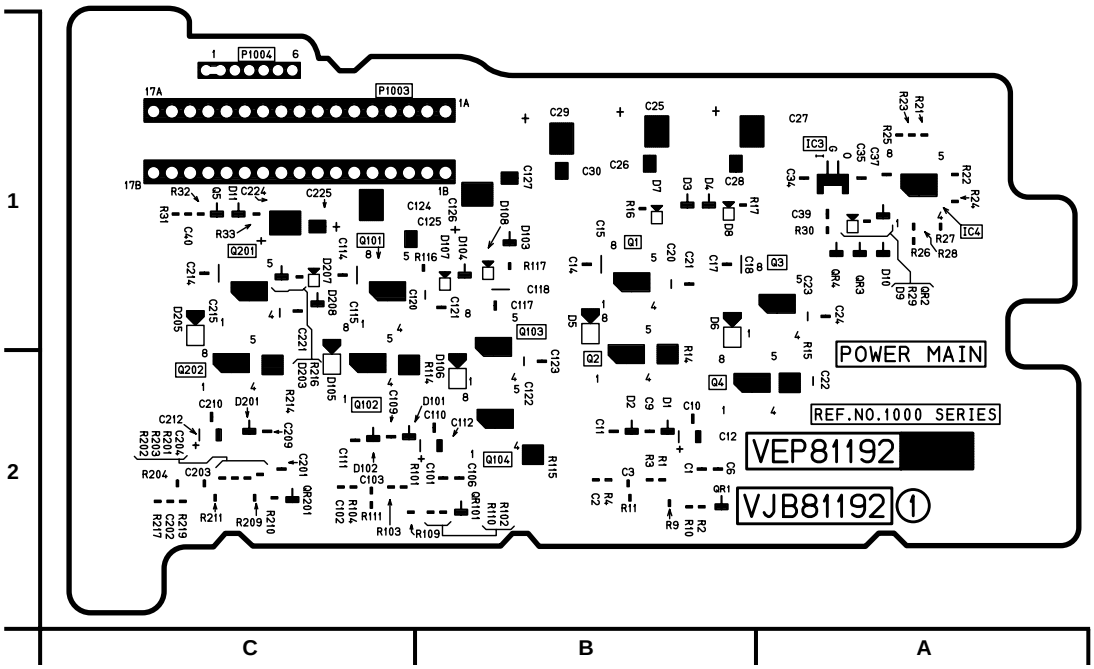
REF	LOC
IC1001	B2
IC1002	A1
IC1101	B2
IC1201	C2
P1002	C2
P1003	C1
P1004	C1
TG1001	C1



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
IC1003	A1
IC1004	A1
P1003	C1
P1004	C1
Q1001	B1
Q1003	A1
Q1004	B2
Q1101	C1
Q1102	C2
Q1104	B2
Q1201	C1
Q1202	C2
Q1203	B1
QR1101	B1

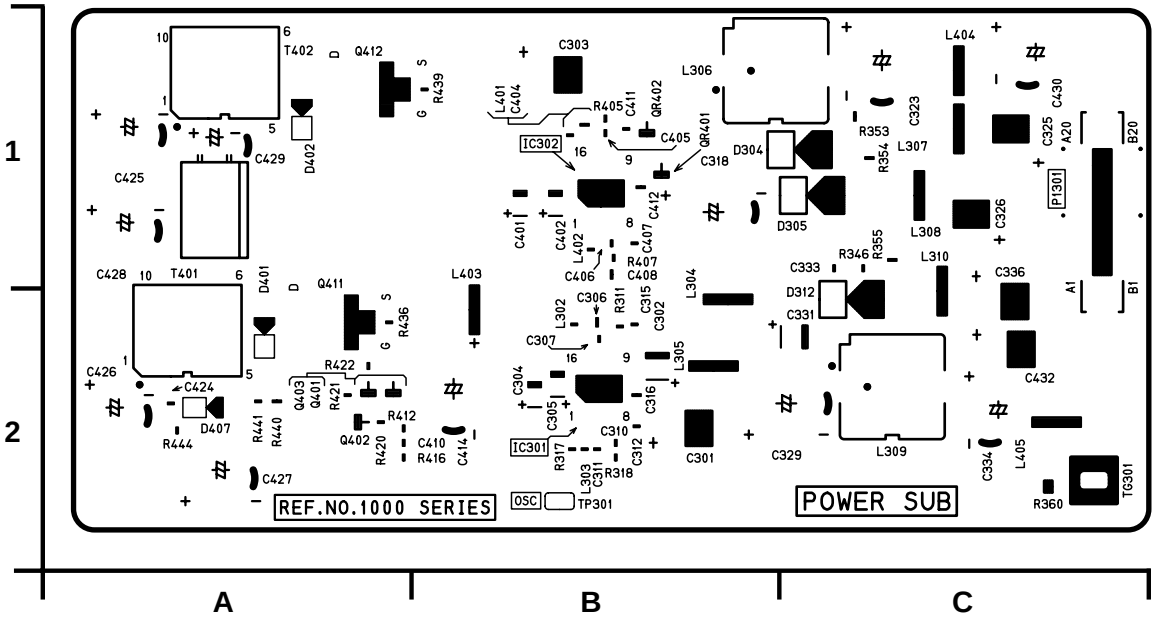


(FOIL SIDE)

POWER SUB P.C. BOARD (VEP81204B)

COMPONENT SIDE

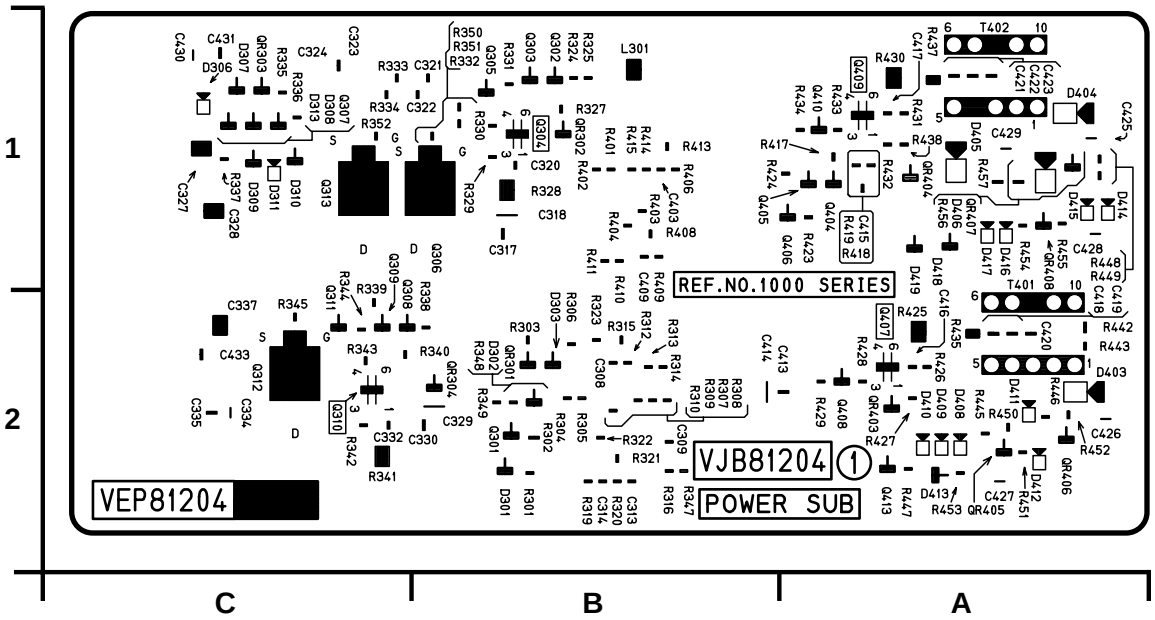
REF	LOC
IC1301	B2
IC1302	B1
P1301	C1
Q1401	A2
Q1402	A2
Q1403	A2
Q1411	A1
Q1412	A2
QR1402	B1
QR1402	B1
TG1301	C2
TP1301	B2



(COMPONENT SIDE)

FOIL SIDE

REF	LOC
Q1304	B1
Q1307	C1
Q1310	C2
Q1311	C2
Q1406	A1
Q1407	A2
Q1409	A1
QR1301	B2
QR1303	C1
QR1304	B2
QR1404	A1
QR1407	A1
QR1408	A1

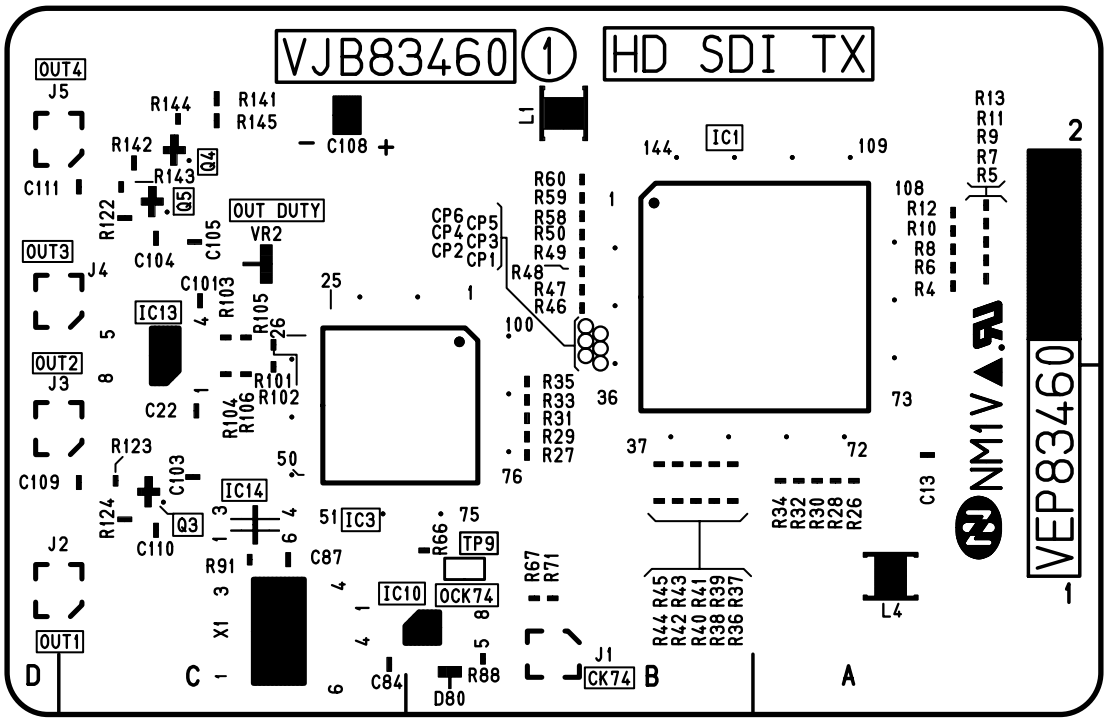


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HD SDI TX P.C. BOARD (VEP83460B)

COMPONENT SIDE

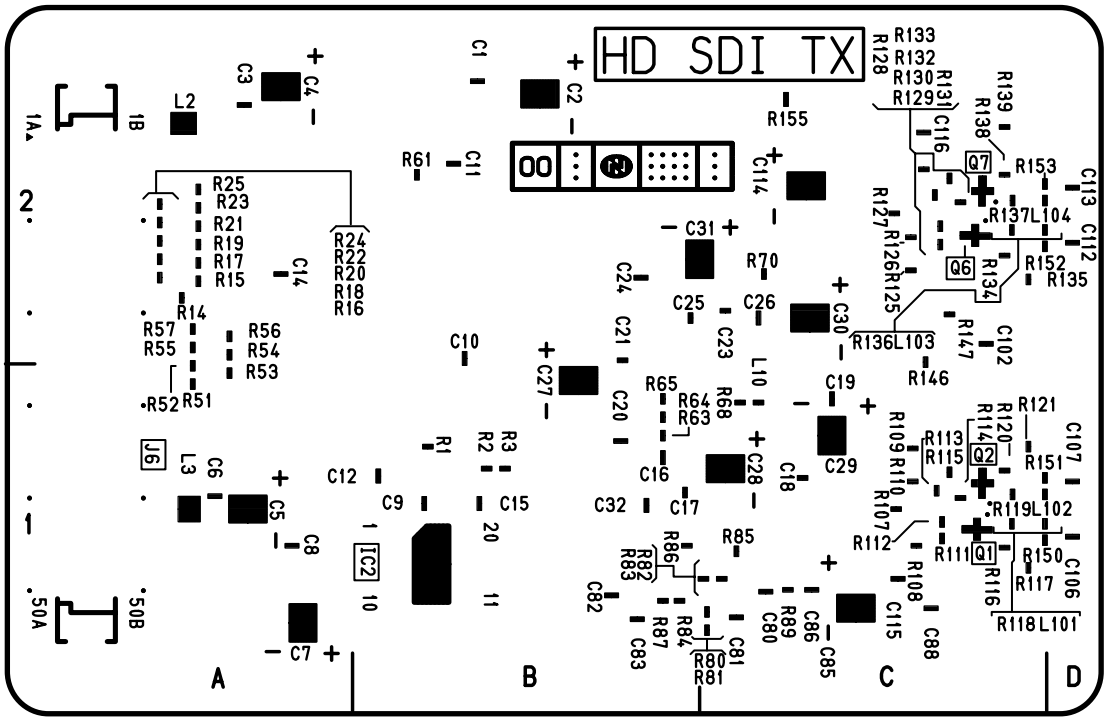
REF	LOC
IC1	B2
IC3	C1
IC10	B1
IC13	C2
IC14	C1
Q3	C1
Q4	C2
Q5	C2
TP9	B1
VR2	C2



(COMPONENT SIDE)

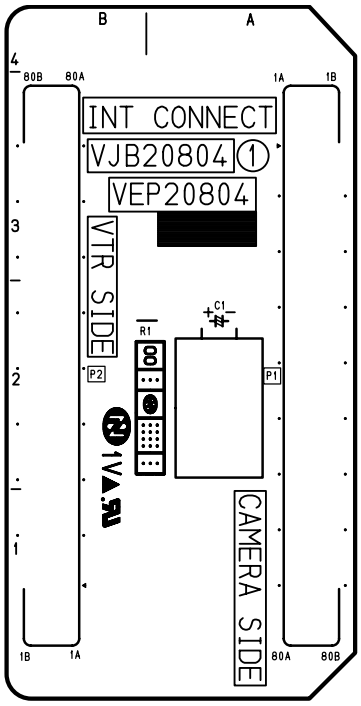
FOIL SIDE

REF	LOC
IC2	B1
Q1	C1
Q2	C1
Q6	C2
Q7	C2



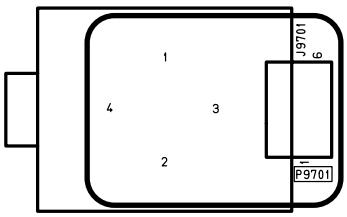
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INT CONNECT P.C. BOARD (VEP20804A)

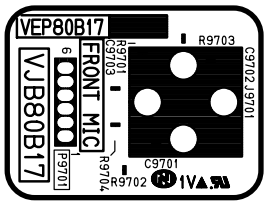


(COMPONENT SIDE)

FRONT MIC P.C. BOARD (VEP80B17A)

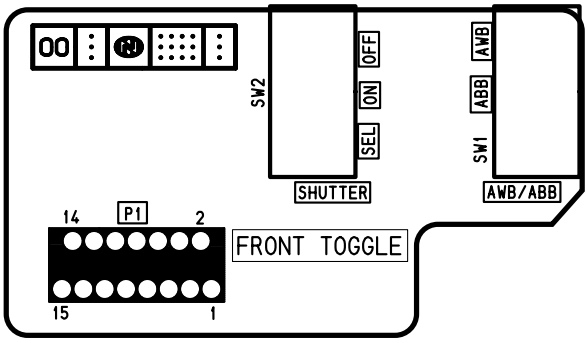


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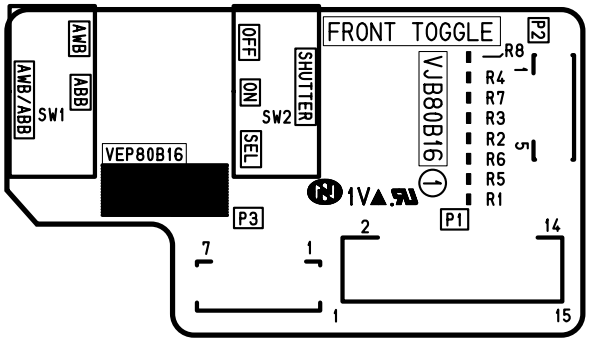


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FRONT TOGGLE P.C. BOARD (VEP80B16B)

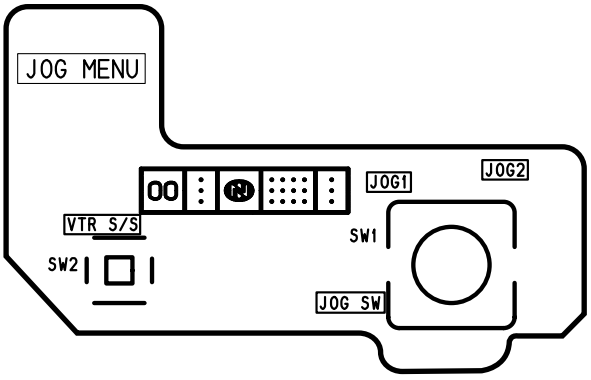


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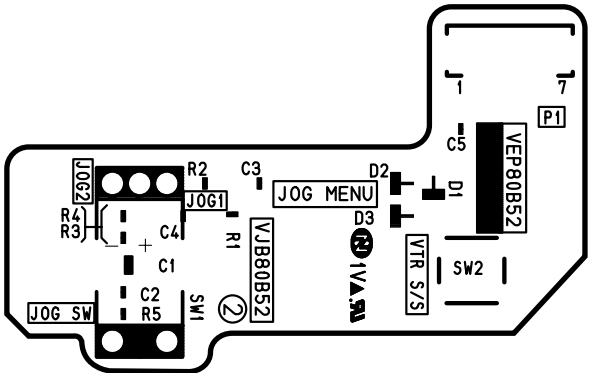


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JOG MENU P.C. BOARD (VEP80B52A)

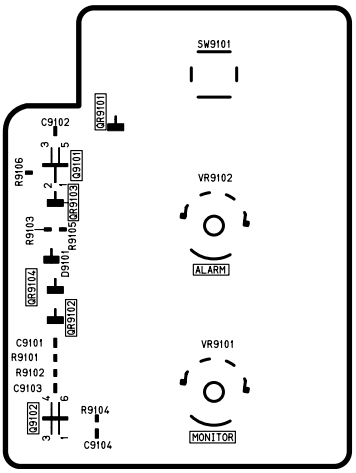


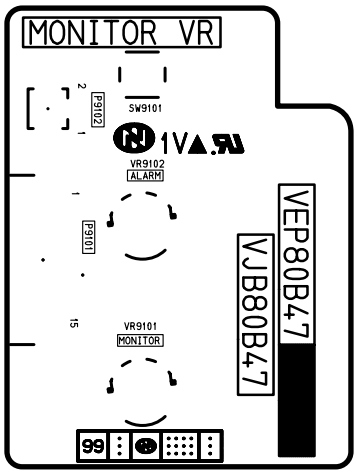
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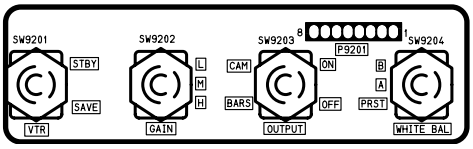
MONITOR VR P.C. BOARD (VEP80B47A)

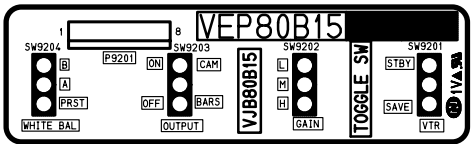




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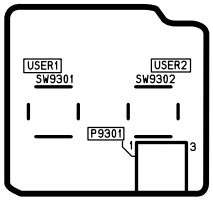
TOGGLE SW P.C. BOARD (VEP80B15A)

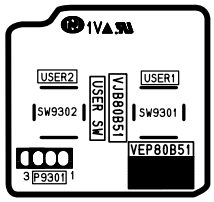




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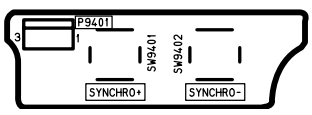
USER SW P.C. BOARD (VEP80B51A)

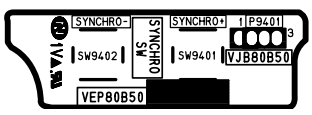




(COMPONENT SIDE) (FOIL SIDE)

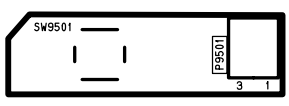
SYNCHRO SW P.C. BOARD (VEP80B50A)





(COMPONENT SIDE) (FOIL SIDE)

MENU SW P.C. BOARD (VEP80B53A)





(COMPONENT SIDE) (FOIL SIDE)

SERVO FLEX P.C. BOARD (VEP80B38A)

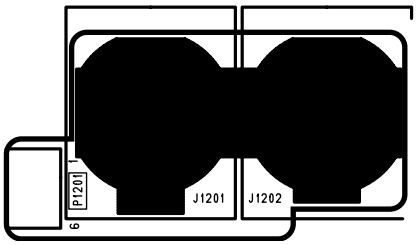


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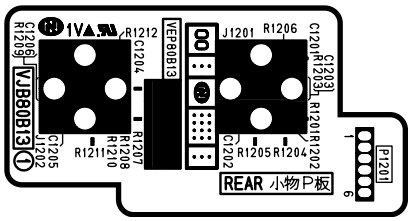


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REAR JACK P.C. BOARD (VEP80B13B)

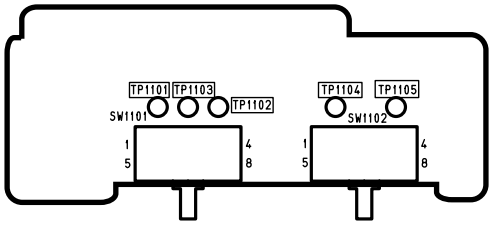


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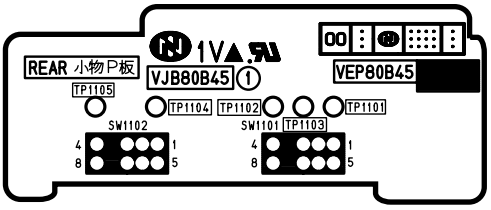


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REAR SW P.C. BOARD (VEP80B45A)

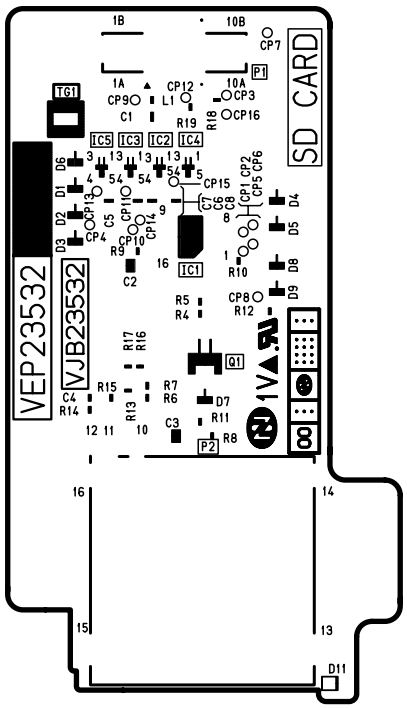


(COMPONENT SIDE)



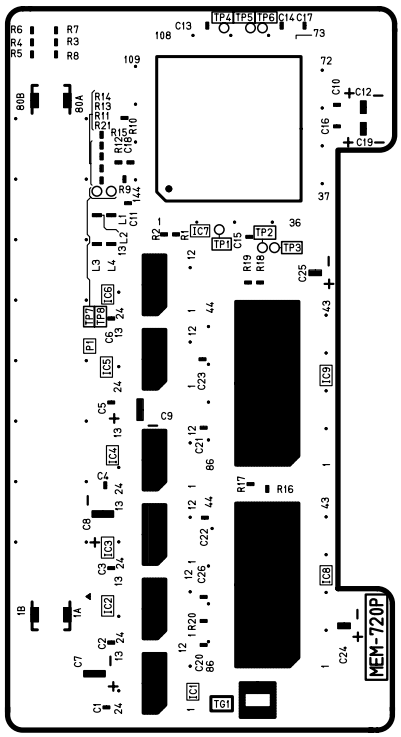
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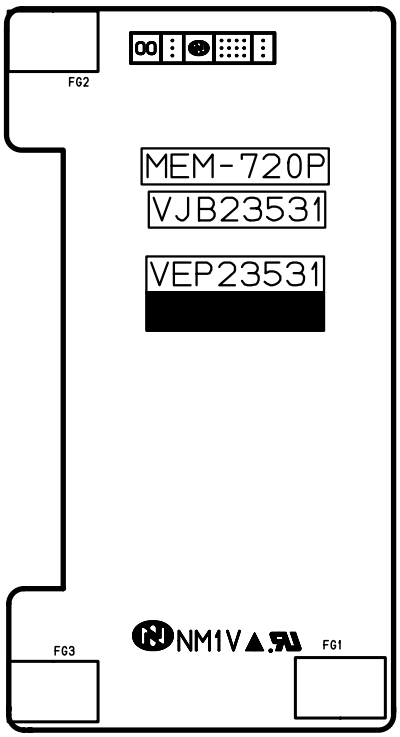
SD CARD P.C. BOARD (VEP23532A)



(COMPONENT SIDE)

MEMORY P.C. BOARD (VEP23531A)





(COMPONENT SIDE) **(FOIL SIDE)**

SECTION 9

EXPLODED VIEWS
&
REPLACEMENT PARTS LIST

Note:

1. *Be sure to make your orders of replacement parts according to this list.
2. Unless otherwise specified, all resistors are in OHMS, K=1,000 OHMS, all capacitors are in MICROFARADS (μF), P=μμF.
3. The P.C. Board untils marked with "■" shown below the main assembled parts.
4. The parts marked with Ⓔ on the exploded view show the electric parts.
5. IMPORTANT SAFETY NOTICE
   Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
6. The marking (RTL) indicates the retention time is limited for this item.
   After the diacontinuation of this assembly in production, it will no longer be available.

CONTENTS

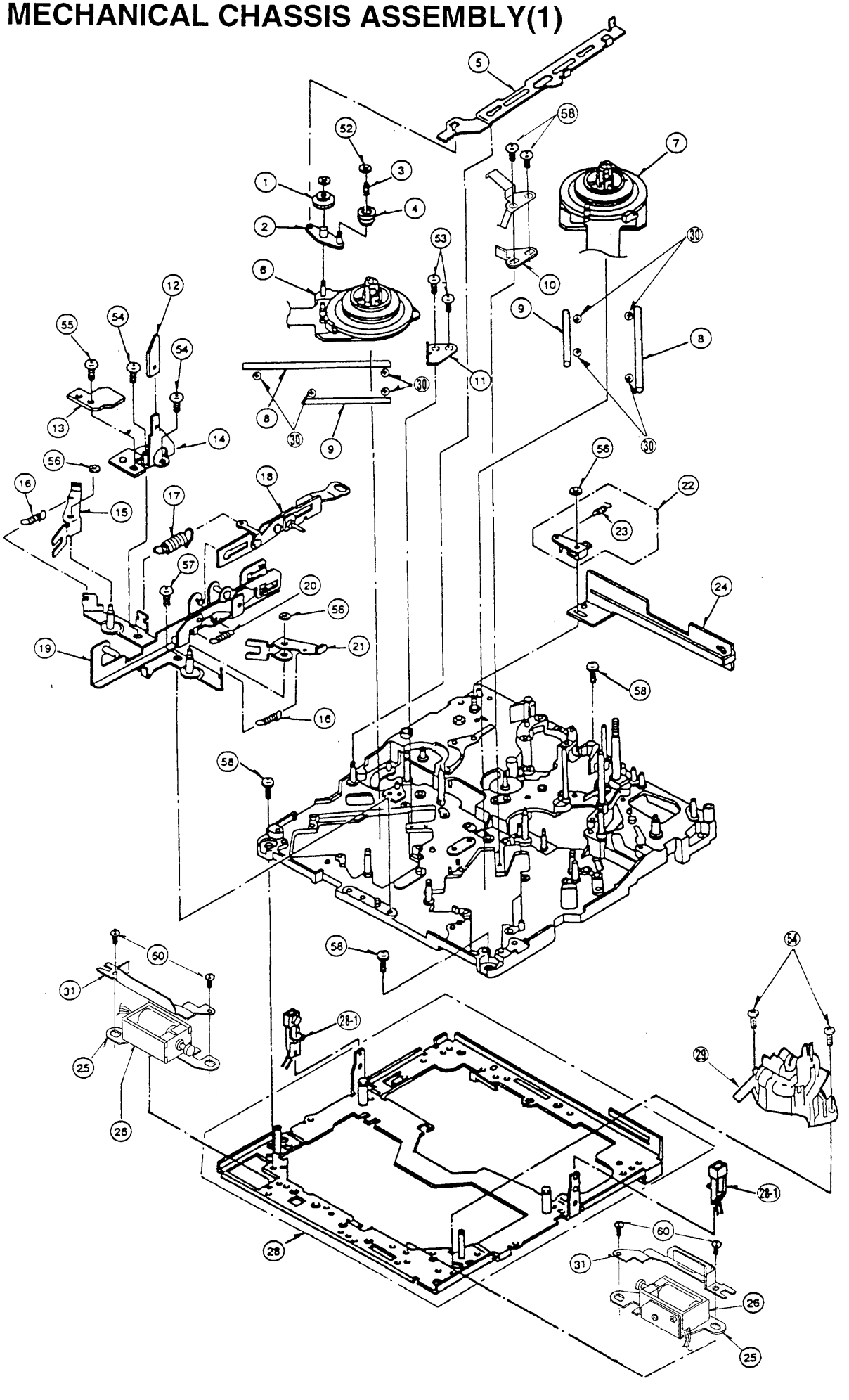
MECHANICAL CHASSIS ASSEMBLY (1) PRT-1
MECHANICAL CHASSIS ASSEMBLY (2) PRT-3
CHASSIS FRAME ASSEMBLY (1) PRT-5
CHASSIS FRAME ASSEMBLY (2) PRT-7
CHASSIS FRAME ASSEMBLY (3) PRT-9
CASSETTE COMPARTMENT ASSEMBLY PRT-11
PACKING PARTS ASSEMBLY PRT-13
ELECTRICAL REPLACEMENT PARTS LIST PRT-14

SERVICING FIXTURES & TOOLS

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VFK1145A	BACK TENSION METER	1	
2	VFK1149A	POST DRIVER	1	
3	VFK71A	DIAL TORQUE GAUGE	1	
4	VFK1191A	DIAL TORQUE GAUGE	1	
5	VFK1152	GORQUE GAUGE ADAPTOR	1	
6	VFK0357	ECCENTRIC SCREWDRIVER	1	
7	VFK1154	POST HIGHT TOOL	1	
8	VFK1586	MECH NEWTRAL PLATE (L)	1	
9	VFK1155	NEWTRAL POSITION TOOL	1	
10	VFK1156	NEWTRAL POSITION TOOL	1	
11	VFK1208	NEWTRAL POSITION TOOL	1	
12	VFK1150	NUT DRIVER (5.2MM)	1	
13	VFK1151	NUT DRIVER (2.5MM)	1	
14	VFK1188A	DIAL TENSION GAUGE	1	
15	VFK0948	CHECK LIGHT	1	
16	VFK0749	FROIRAL GREASE	1	
17	M0R265	MORLYTONE GREASE	1	
18	VFK1146	PHILIPS DRIVER	1	
19	VFK1147	SCREW DRIVER	1	
20	VFK1148	HEX DRIVER (1.5MM)	1	
21	VFK1178	HEX DRIVER (0.89MM)	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
22	VFK1179	HEX DRIVER (0.71MM)	1	
23	VFK1190	HEX WRENCH (1.5MM)	1	
24	VFK1209A	TORQUE DRIVER	1	
25	VFK1375	TORQUE DRIVER ADAPTOR (1.5M)	1	
26	VFK1300	A/D BOARD (DAQ-12,QUATECH)	1	
27	VFM3580KL	ALIGNMENT TAPE (NO.1)	1	
28	VFM3581KL	ALIGNMENT TAPE (NO.2)	1	
29	VFM3582KL	ALIGNMENT TAPE (NO.3)	1	
30	AJ-CL12P	CLIEANING TAPE	1	
31	VFK1481B	LISTA SOFT	1	
32	VFK1186	LISTA CABLE	1	
33	VFK0369	TWEEZERS	1	
34	VFK0371	RADIO PRIER	1	
35	VFK0372	CUTTER PRIER	1	
36	VFK0337	PHILIPS DRIVER	1	
37	VFK0338	PHILIPS DRIVER	1	
38	VFK1369	TAPE SENSOR ADJUSTMENT CASSETTE	1	
39	VFK0906	OIL	1	
40	VFK1642	GRAY SCALE CHART(REFLECTION TYPE)	1	
41	VFK1643	RESOLUTION CHART(REFLECTION TYPE)	1	
42	VFK1644	IMMEGA CYCLE CHART(TRANSPARENCY TYPE)		

MECHANICAL CHASSIS ASSEMBLY(1)

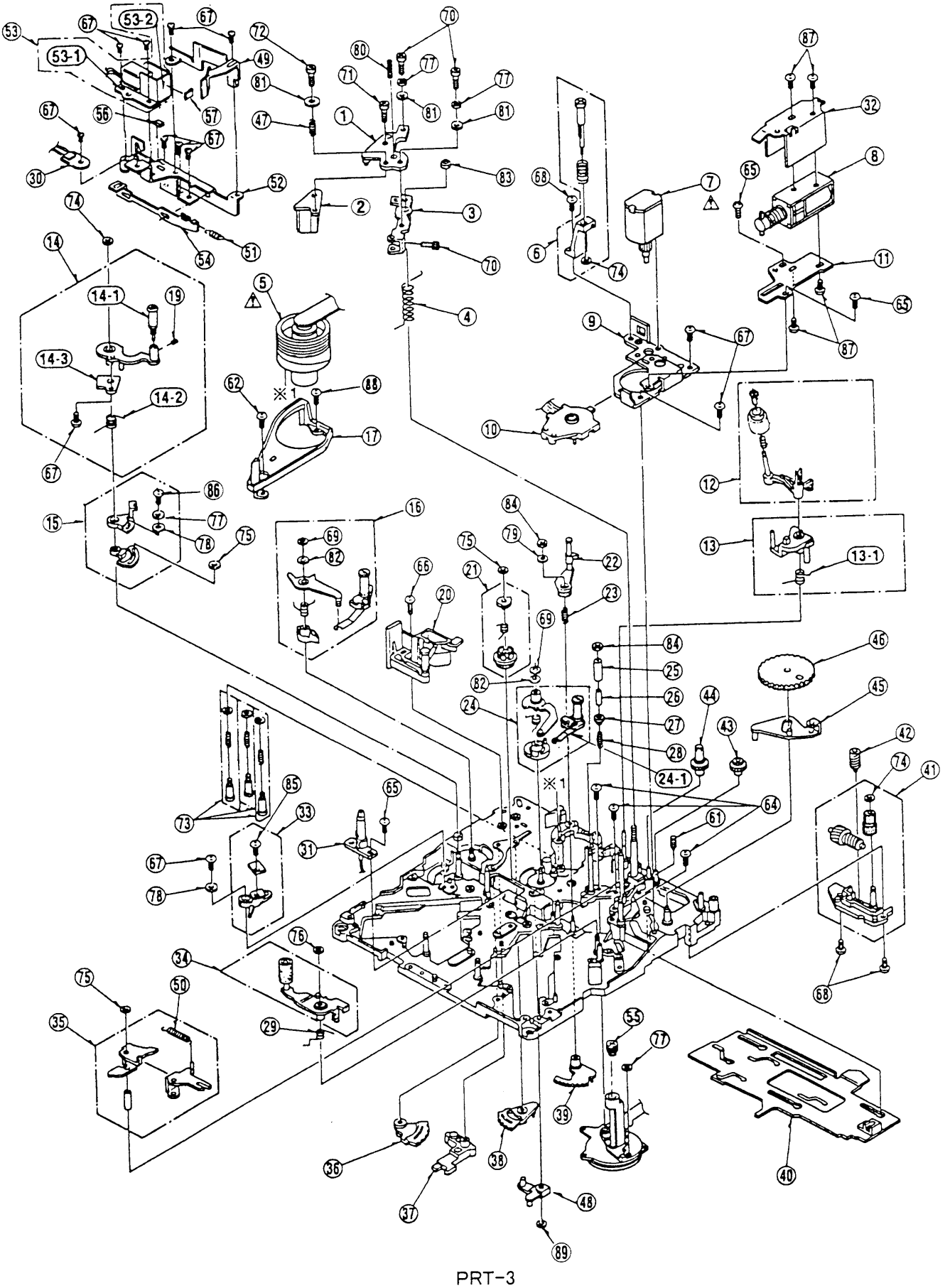


MECHANICAL CHASSIS ASSEMBLY (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VDG1189	IDLER GEAR A	1	
2	VXL2614	IDLER ARM ASS'Y	1	
3	VMB3011	IDLER SPRING	1	
4	VXP1700	IDLER GEAR ASS'Y	1	
5	VMM0422	E-E ROD	1	
6	VEM0658	S REEL MOTOR ASS'Y	1	(M)
7	VEM0659	T REEL MOTOR ASS'Y	1	(M)
8	VMS5923	REEL OUTER RAIL	2	
9	VMS5924	REEL INNER RAIL	2	
10	VMA9727	RAIL TABLE STOPPER (T)	1	
11	VMA9726	RAIL TABLE STOPPER (S)	1	
12	VMD2588	BRAKE RELEASE	1	
13	VEK7694	CASSETTE DOWN PHOTO ASS'Y	1	
13-1	0N1004-R	PHOTO INTERRUPTER	1	
14	VMA9729	L CASSETTE LOCK RELEASE BASE	1	
15	VXL3062	S BRAKE ARM	1	
16	VMB3137	S BRAKE SPRING L	2	
17	VMB3139	SLIDE ROD SPRING	1	
18	VXL2754	SLIDE ROD	1	
19	VXA5892	BRAKE BASE	1	
20	VMB2779	LOCK SPRING	1	
21	VXL3063	T BRAKE ARM	1	
22	VXL2615	CONNECTION ARM B	1	
23	VMB2973	ARM RELEASE SPRING	1	
24	VXL2653	CONNECTION ARM C ASS'Y	1	
25	VMA9387	SOLENOID BASE	2	
26	VSJ0216	SOLENOID	2	(M)
28	VXK1666	SUB CHASSIS	1	
28-1	VEK7692	SENSOR HOLDER ASS'Y	2	
29	VXA6254	L SWITCH BASE B	1	
30	VHD0995	SCREW	8	
31	VXA6877	SOLENOID SUPPORTER	2	
51	VMX1061	WASHER	2	
52	VMX2391	CUT WASHER	1	
53	XYN2+J5	SCREW	4	
54	XQN2+CF4	SCREW	2	
55	XQN2+A3	SCREW	2	
56	VMX0967	CUT WASHER	3	
57	XQN2+CF3	SCREW	3	
58	XTV3+6F	SCREW	3	
59	XQN2+A2	SCREW	4	
60	XYN2+K4	SCREW	4	
61	XQN2+CJ5	SCREW	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

MECHANICAL CHASSIS ASSEMBLY(2)



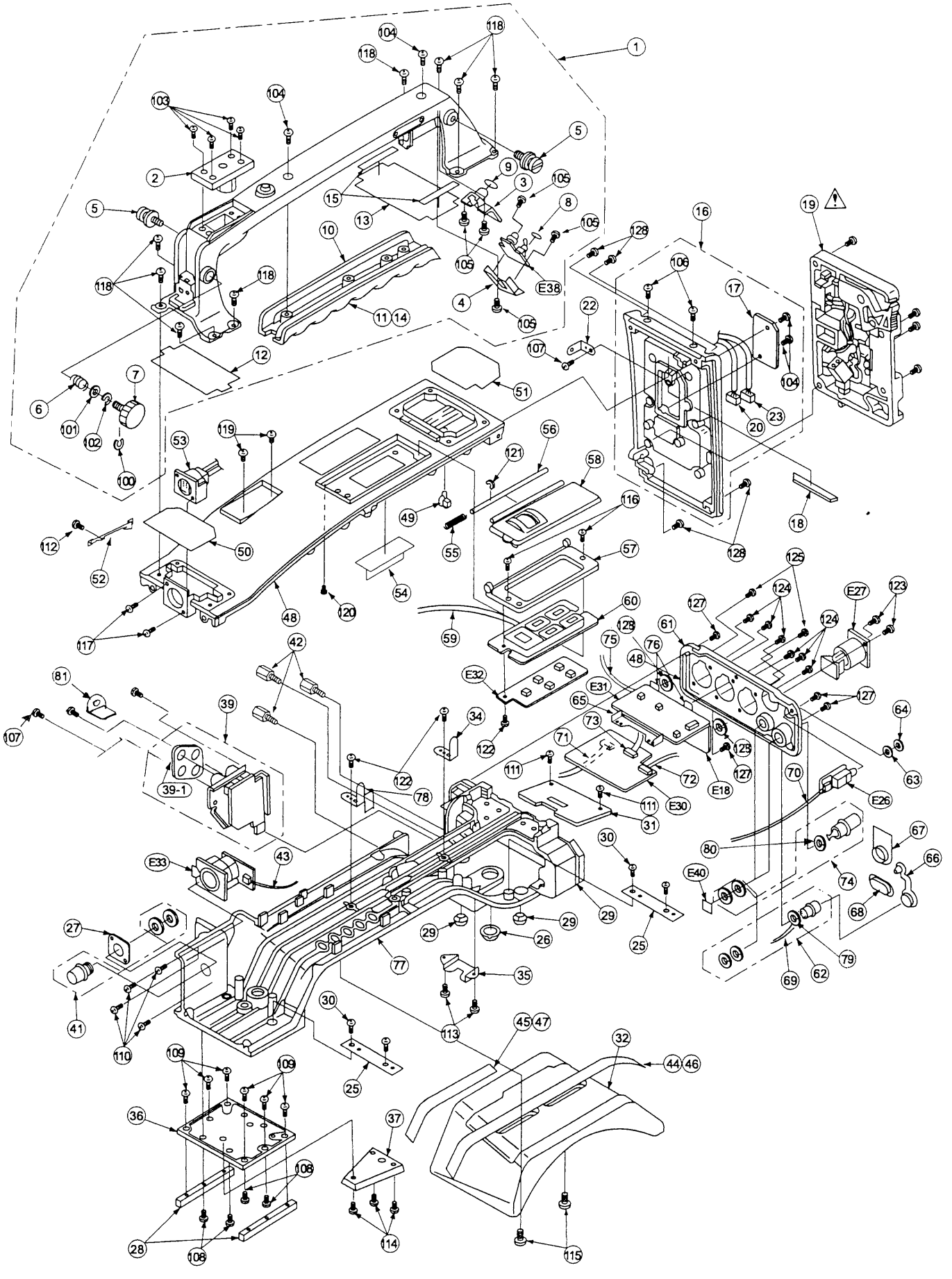
MECHANICAL CHASSIS ASSEMBLY (2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXA6630	A/C HEAD BASE (1) ASS'Y	1	
2	VED0419	A/C HEAD	1	(M)
3	VXA6067	A/C HEAD BASE (2) ASS'Y	1	
4	VMB2935	A/C HEAD HIGHT SPRING	1	
⚠ 5	VEG1526	CYLINDER UNIT	1	(M)
6	VXA5715	EMARGENCY SHIFT HOLDER ASS'Y	1	
⚠ 7	VEM0645	LOADING MOTOR (1)A ASS'Y	1	(M)
8	VSJ0227	PINCH SOLENOID	1	(M)
9	VXA5584	MOTOR ANGLE ASS'Y	1	
10	VES0918	MODE SW ASS'Y	1	(M)
11	VMA0A35	PINCH SOLENOID BASE	1	
12	VXL3027	CLEANING ARM ASS'Y	1	(M)
12-1	VMX2150	CLEANER ROLLER HOLDER	1	
12-2	VXL3027	CLEANING ARM ASS'Y	1	
12-3	VMB3114	CLEANER ROLLER SPRING	1	
13	VXL2871	T2 ARM ASS'Y	1	
13-1	VMB3304	T2 ARM SPRING	1	
14	VXL2832	TENSION ARM A ASS'Y	1	(M)
14-1	VXP1866	TENSION ROLLER	1	
14-2	VMB3220	TENSION LEG SPRING	1	
14-3	VXA6173	MAGNET HOLDER ASS'Y	1	
15	VXA5791	TENSION LEG SPRING HOOK ASS'Y	1	
16	VXL2967	S1 LOADING ARM ASS'Y	1	(M)
17	VMD3731	LOADING RAIL	1	
19	VHD0561	HEX SCREW	1	
20	VXA6025	S POST BASE A ASS'Y	1	(M)
21	VXP1683	T4 CONNECTION GEAR ASS'Y	1	
22	VXL2772	T4 ARM ASS'Y	1	
23	VMB2950	T4 THRUST SPRING	1	
24	VXL2969	T LOADING ARM N ASS'Y	1	
25	VMS5906	T3 UPPER FRANGE	1	
26	VMS5905	T3 SLEEVE	1	
27	VMS5904	T3 LOWER FRANGE	1	
28	VMB2929	T3 SPRING	1	
29	VMB2933	PINCH RELEASE SPRING	1	
30	VEK7927	INSULLATION SENSOR	1	EYHS77Y7
31	VEK7691	LED HOLDER P.C.BOARD	1	
32	VMA9411	PINCH SOLENOID ANGLE	1	
33	VXA5820	TENSION SENSOR ASS'Y	1	(M)
34	VXL2835	PINCH ARM ASS'Y	1	(M)
35	VXL2588	PINCH GUIDE ARM ASS'Y	1	
36	VXA5570	T SECTOR GEAR ASS'Y	1	
37	VXL2838	TENSION LEG. GUIDE ARM	1	
38	VXA5567	S SECTOR GEAR ASS'Y	1	
39	VXA5564	T4 SECTOR GEAR ASS'Y	1	
40	VXA6348	MAIN ROD ASS'Y	1	
41	VXA5627	THRUST SHAFT HOLDER ASS'Y	1	
42	VDG1166	MOTOR WARM GEAR	1	
43	VDG1268	MOTOR EMARGENCY GEAR A(A)	1	
44	VDG1267	MOTOR EMARGENCY GEAR B(A)	1	
45	VXL2889	MAIN CAM ARM ASS'Y	1	
46	VDG1168	MAIN CAM GEAR	1	(M)
47	VMB2937	A/C HEAD ADJUST SPRING	1	
48	VXL2600	EJECT ARM ASS'Y	1	
49	VMD3475	T1 GUIDE ASS'Y	1	
50	VMB2934	SPRING	1	
51	VMB3051	CLEANER RETURN SPRING	1	
52	VXA6077	CLEANER BASE 1 ASS'Y	1	
53	VXA6078	CLEANER SOLENOID ASS'Y	1	
53-1	VSJ0222	CLEANER SOLENOID	1	L9AAAACB0001 (M)
53-2	VMA9521	CLEANER SOLENOID BASE	1	
54	VMM0429	CLEANER INTERLOCK	1	
55	VXQ0556	THRUST SCREW ASS'Y	1	(M)
61	VHD0356	SCREW	1	
62	XQN2+A3	SCREW	1	
64	XQN2+A35FZ	SCREW	3	
65	XQN2+AM2	SCREW	3	
66	XQN2+AM4	SCREW	1	
67	XQN2+CF3	SCREW	12	
68	XQN2+CF4	SCREW	1	
69	XUC12FP	E-RING	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
70	XVE2B4FZ	HEX SCREW	3	
71	XVE2B6FP	HEX SCREW	1	
72	XVE2B12FP	HEX SCREW	1	
73	VXQ0439	SCREW	3	
74	VMX0967	CUT WASHER	2	
75	VMX1061	WASHER	3	
76	VMX1079	CUT WASHER	1	
77	XWA2B	WASHER	4	
78	XWE2	WASHER	1	
79	XWE16VW	WASHER	1	
80	XXE2A6FP	HEX SCREW	1	
81	XWG2	WASHER	2	
82	XWGV15Z32G	WASHER	2	
83	VHD0045	NYLON NUT	1	
84	VHN0312	NUT	2	
85	XQN2+AQ3.5FZ	SCREW	1	
86	XQN2+AJ5	SCREW	1	
87	XQN2+A15	SCREW	4	
88	XQN2+A4	SCREW	1	
89	VMX0967	CUT WASHER	1	
*	VXY1523	MECHANISM	1	(M)

Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.

CHASSIS FRAME ASSEMBLY(1)

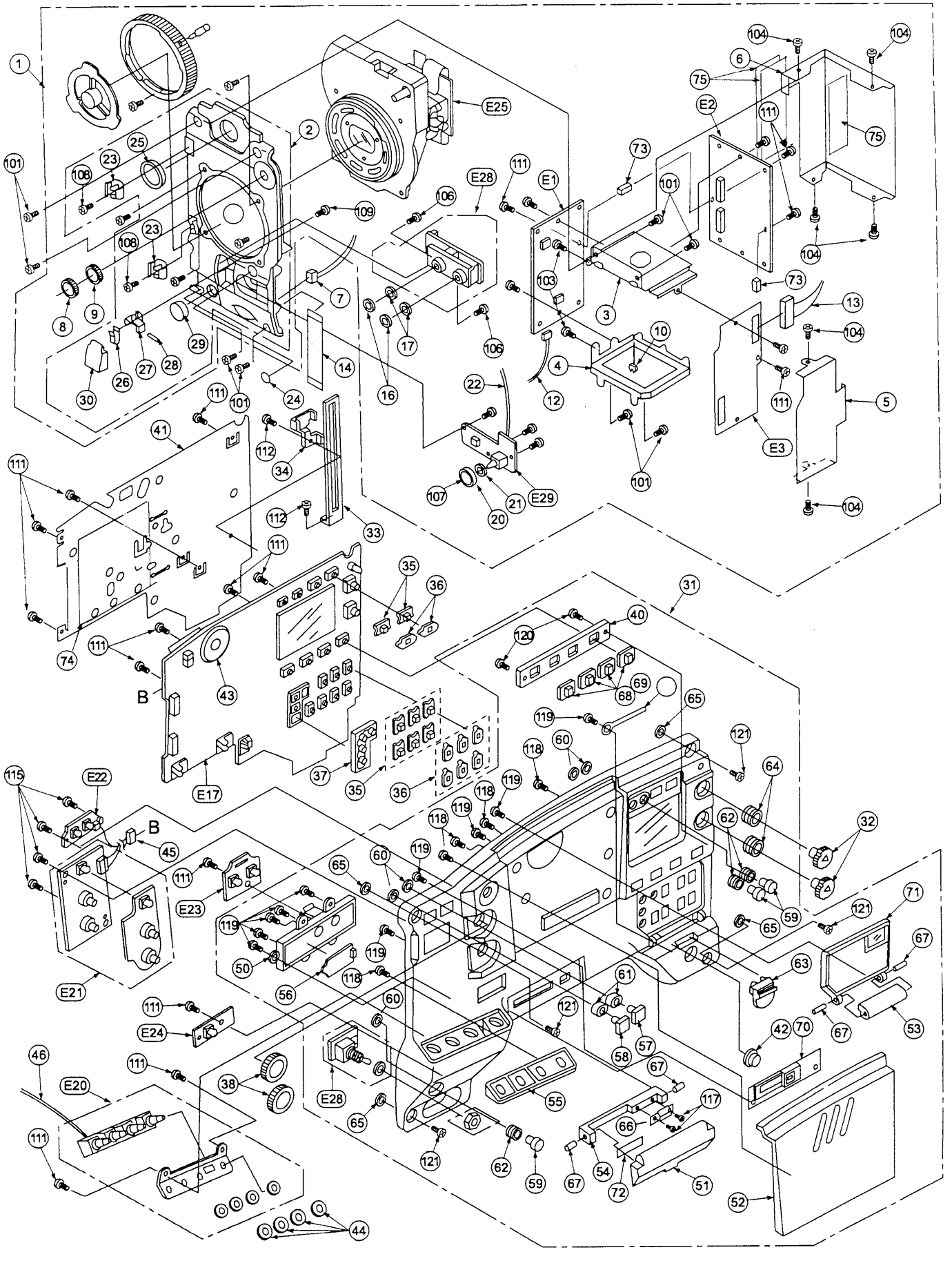


CHASSIS FRAME ASSEMBLY (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYH0280	HANDLE ASS'Y	1	
2	VJF1319	SHOE	1	
3	VGL0783	TALLY COVER	1	
4	VMP5585	P.C.BOARD ANGLE	1	
5	VMS4284	BELT HOOK PIN	2	
6	VMB1615	SPRING	1	
7	VGU7080	SIDE U LOCK KNOB	1	
8	VMG0955	P4 O-RING	1	
9	VMG0956	P8 O-RING	1	
10	VKF3166	HANDLE COVER	1	
11	VMG1315	HANDLE RUBBER	1	
12	VYQ2029	DUSTPROOF CUSHION F ASS'Y	1	
13	VYQ2030	DUSTPROOF CUSHION R ASS'Y	1	
14	VKF3243	HANDLE COVER	1	
15	VMG1343	RUBBER SPACER	2	
16	VYK9468	BACK CASE ASS'Y	1	
17	VYF2460	BACK CASE COVER ASS'Y	1	
18	VGF0515	BATTERY CABLE HOLDER	1	
⚠ 19	VJF1347	BATTERY HOLDER	1	
20	VEE9435	BATT CABLE ASS'Y	1	
22	VMP6384	BACK CASE FIX ANGLE	1	
23	VEE0K17	ANTON BATT CABLE	1	
24	VYK9469	BOTTOM CASE ASS'Y	1	
25	VKC0560	HINGE	2	
26	VMG0643	BRAKER CAP	1	
27	VMP4853	LENS CONNECTOR PLATE	1	
28	VKA0299	FRONT FOOK	2	
29	VMG0954	REAR FOOT	2	
30	VHD0325	SCREW	2	
31	VGQ5256	PROTECT PLATE	1	
32	VMT1121	SHOLDER PAD	1	
33	VMP6382	STEREO MIC HOLDER ANGLE	1	
34	VMP6385	BOTTOM CASE FIX ANGLE	1	
35	VMP6370	BACK LOCK ANGLE	1	
36	VGM1277	FRONT FOOT BASE	1	
37	VGM1278	FRONT V EDGE	1	
39	VEK8604	CONNECTOR (L)	1	
39-1	VMG1089	RAIN COVER SPONGE	1	
41	VEE0J79	LENS CABLE	1	
42	VMS6081	P.C.B. POST	3	K9ZZ00000704
43	VEE0K08	MIC CABLE	1	
44	VKN0156	BOTTOM NET A	1	
45	VKN0157	BOTTOM NET B	1	
46	VMT1143	BOTTOM CUSHION A	1	
47	VMT1144	BOTTOM CUSHION B	1	
48	VGM1708	UPPER CASE	1	
49	VJF0909	CABLE CLAMPER	1	
50	VKN0150	NET (FRONT)	1	
51	VKN0151	HET (REAR)	1	
52	VMP6369	MECHA ANGLE	1	
53	VEE0L12	EVF CONNECTOR	1	
54	VSC5131	ROTATION BOARD HEAT SINK	1	
55	VMB2917	DOOR SPRING	1	
56	VMS5860	DOOR SHAFT	1	
57	VGK2304	VTR OPERATION BASE	1	
58	VKF2817	VTR OPERATION DOOR	1	
59	VEE0K16	OPERATE CABLE	1	
60	VGU8218	VTR OPERATION BUTTON	1	
61	VGM1711	JACK PANEL	1	
62	VEE9413	CONNECTOR	1	
63	VMX0531	CLATCH SPACER	1	
64	VHN0194	SPACER	1	
65	VMP6386	JACK P.C.B. HOLDER ANGLE	1	
66	VMG1310	RUBBER CAP A	1	
67	VMG1311	RUBBER CAP B	1	
68	VMG1312	RUBBER CAP C	1	
69	VEE0K00	ECU (2) CABLE	1	
70	VEE0K07	HP CABLE ASS'Y	1	
71	VEE0K14	EXT DC INF CABLE	1	
72	VEE0K15	REAR SW CABLE	1	
73	VEE0K20	POWER CABLE	1	
74	VEE0L55	CABLE (2)	1	
75	VEE0K12	REAR JACK (1) CABLE	1	
76	VMP4846	JACK P.C.B. ANGLE	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
77	VGM1710	BOTTOM CASE	1	
78	VMP6638	SHIELD ANGLE	1	
79	J0KE00000012	FERRITE CORE	1	
80	J0KE00000033	FERRITE CORE	1	
81	VSC5159	BNC GND	1	
100	XUC3FP	E-RING	1	
101	XWA4BFZ	WASHER	1	
102	XWE4FZ	WASHER	1	
103	XSN2+6FCK	SCREW	4	
104	XSB3+12FZ	SCREW	2	
105	XYN2+F5	SCREW	5	
106	XSB4+6FCK	SCREW	2	
107	XYN3+C6	SCREW	5	
108	XSS3+8FZ	SCREW	4	
109	XTS26+6J	SCREW	6	
110	XSN26+8FCK	SCREW	4	
111	XSS26+6FZ	SCREW	2	
112	XYN3+C6	SCREW	5	
113	XSB3+6FZ	SCREW	2	
114	XSB4+6FC	SCREW	3	
115	XYN3+F8	SCREW	2	
116	XSN2+6FZ	SCREW	2	
117	XSS2+4FZ	SCREW	2	
118	XSN3+8FCK	SCREW	8	
119	XSB4+6FCK	SCREW	2	
120	XYN26+C6	SCREW	1	
121	XUC12VM	E-RING	1	
122	XTN2+4G	SCREW	1	
123	XSN26+6FC	SCREW	2	
124	XSN26+6FCK	SCREW	6	
125	XSB3+4	SCREW	2	
126	XYN26+K6	SCREW	3	
127	XSN3+8FCK	SCREW	4	
128	XWGV26Y5G	WASHER	2	
E18	VEP80B13B	REAR JACK P.C.BOARD	1	
E26	VEP00W08B	HEADPHONE P.C.BOARD	1	
E27	VEP80B75A	EXT DC P.C.BOARD	1	
E30	VEP80B45A	REAR SW P.C.BOARD	1	
E31	VEP84353A	CUE P.C.BOARD	1	
E32	VEP86149A	OPERATE C.B.A.	1	
E33	VEP80B17A	FRONT MIC P.C.BOARD	1	
E38	VEP80A74A	BACK TALLY P.C.BOARD	1	
E40	VEP80B74A	SDI BNC P.C.BOARD	2	

CHASSIS FRAME ASSEMBLY(2)

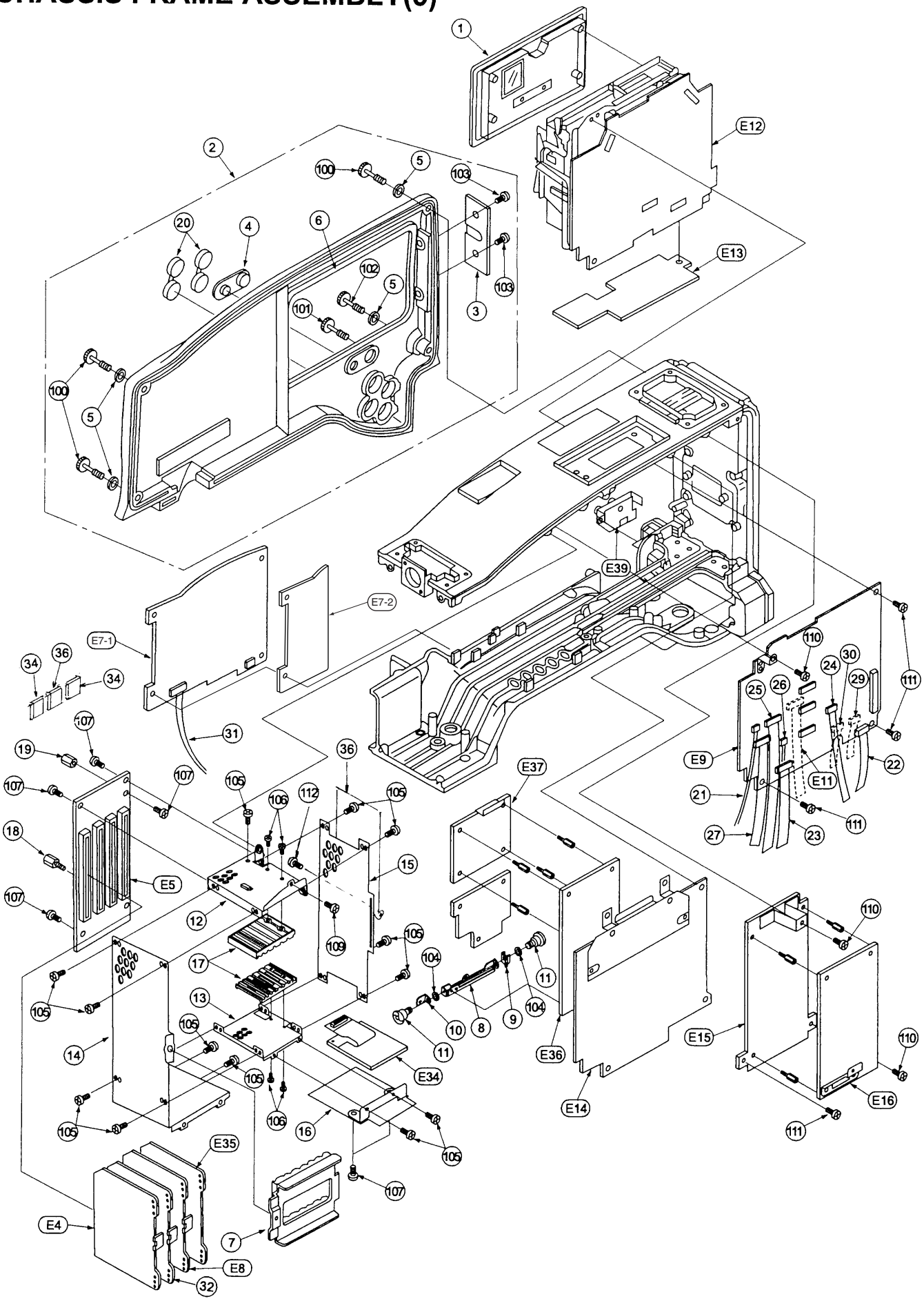


CHASSIS FRAME ASSEMBLY (2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VEQ2451	HEAD OPTICAL	1	
2	VYK9465	FRONT CASE U	1	
3	VMP6764	P.C.B HOLDER ANGLE(UPPER)	1	
4	VMP6765	P.C.B HOLDER ANGLE(LOWER)	1	
5	VSC5071	SHIELD CASE (A)	1	
6	VSC5203	SHIELD CASE (B)	1	
7	VEE0J57	FILTER CABLE ASS'Y	1	
8	VGU8686	FILTER KNOB (ND)	1	
9	VGU8687	FILTER KNOB (CC)	1	
10	VJF0909	CABLE CLAMPER	1	
12	VEE0J53	PREAMP-PREPROCESS	1	
13	VEE0J59	DRIVE-CAMMOTHER	1	
14	VWJ15SW170L1	F.TOGGLE-CAMMOTHER	1	
15	VWJ10XW037T1	SENSOR-PULSE	1	
16	VMG0646	WATERPROOF SW INSULATION SHEET	2	
17	VMT0738	SW INSULATION CUSHION	2	
20	VGU8541	MENU KNOB	1	
21	VMG1317	MENU WATERPROOF RUBBER	1	
22	VEE0J58	FRONT-F.TOGGLE	1	
23	VJF1256	CABLE CLAMPER	2	
24	VGF0651	SHIELD SHEET	1	
25	VMG0948	EVF RUBBER SHIELD	1	
26	VMC1210	FRONT DOOR SPRING	1	
27	VMP4850	FRONT DOOR ANGLE	1	
28	VMS4088	FRONT DOOR ANGLE PIN	1	
29	VXU1551	RUBBER BUTTON	1	
30	VKF2485	FRONT DOOR	1	
31	VYP8147	SIDE CASE (R) ASS'Y	1	
32	VGU8129	VR KNOB	2	
33	VKC0561	HINGE (B)	1	
34	VMP5685	GUIDE ANGLE	1	
35	VGU7688	SLIDE SW COVER	8	
36	VMG1085	RAIN COVER RUBBER	8	
37	VGU7700	OPERATION BUTTON	1	
38	VGU7077	VR KONB A	2	
40	VMP5578	SLIDE SW ANGLE	1	
41	VMZ3043	LCD BARRIER	1	
42	VGF0855	COVER	1	
43	VEK8349	SPEAKER ASS'Y	1	
44	VMG1140	RAIN COVER SPONGE	4	
45	VEE0K09	SYNCHRO CABLE	1	
46	VEE0K10	T SW	1	
50	VYP8112	OPERATION PANEL ASS'Y	1	
51	VKF2814	OPERATION DOOR (B)	1	
52	VMT0866	FACE PAT	1	
53	VDB1489	DOOR SUPPORT BASE (A)	1	
54	VDB1490	DOOR SUPPORT BASE (B)	1	
55	VGK2705	TOGGLE SW PLATE	1	
56	VKF2818	SLIDE DOOR	1	
57	VGU7696	SHUTTER BUTTON (+)	1	
58	VGU7697	SHUTTER BUTTON (-)	1	
59	VGU7698	OPERATION BUTTON	3	
60	VMX2715	WASHER	5	
61	VMG1092	RAIN COVER RUBBER (A)	2	
62	VMG1093	RAIN COVER RUBBER (B)	3	
63	VMG1094	ECU CAP	1	
64	VMG1096	VR RAIN COVER PACKING	2	
65	VMX1558	NYLON WASHER	4	
66	VMC1209	DOOR SPRING	1	
67	VMS5505	ROLLER SHAFT	4	
68	VGU8130	SLIDE SW COVER	4	
69	VMG1195	SLIDE SW RUBBER	4	
70	VGP5305	MMC PANEL	1	
71	VYF2691	OPERATION DOOR (A)	1	
72	VMT1154	DUSTPROOF CUSHION	1	
73	VMX3088	MOUNT BLOCK	1	
74	VXA6889	SHIELD PLATE	1	
75	VMT0963	GASKET	3	
101	XSB3+6FZ	SCREW	4	
103	XYN26+F6FX	SCREW	6	
104	XYN26+C4	SCREW	6	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
107	XXEV2W4FP	SCREW	2	
108	XSB2+4FZ	SCREW	2	
109	XYN2+C4	SCREW	1	
111	XYN3+K6RS	SCREW	11	
112	XYN3+K8	SCREW	1	
115	VWJ15C2038L0	SCREW	1	
106	XYN3+C6	SCREW	2	
117	XQN26+A4	SCREW	2	
118	XTN3+6G	SCREW	5	
119	XYN26+K6	SCREW	9	
120	XYN3+C6	SCREW	2	
121	XSB3+10VZ	SCREW	4	
122	VHD1362	SCREW	3	
E1	VEP20857A	PRE AMP P.C.BOARD	1	
E2	VEP20855A	TG P.C.BOARD	1	
E3	VEP20856A	DRIVE P.C.BOARD	1	
E17	VEP84331A	AUDIO LCD P.C.BOARD	1	
E19	VEP80B49A	POWER SW P.C.BOARD	1	
E20	VEP80B15A	TOGGLE SW P.C.BOARD	1	
E21	VEP80B47A	MONITOR SW P.C.BOARD	1	
E22	VEP80B50A	SYNCHRO SW P.C.BOARD	1	
E23	VEP80B51A	USER SW P.C.BOARD	1	
E24	VEP80B53A	MENU SW P.C.BOARD	1	
E25	VEP20854A	CCD SENSOR P.C.BOARD	1	
E28	VEP80B16B	FRONT TOGGLE P.C.BOARD	1	
E29	VEP80B52A	JOG MENU P.C.BOARD	1	

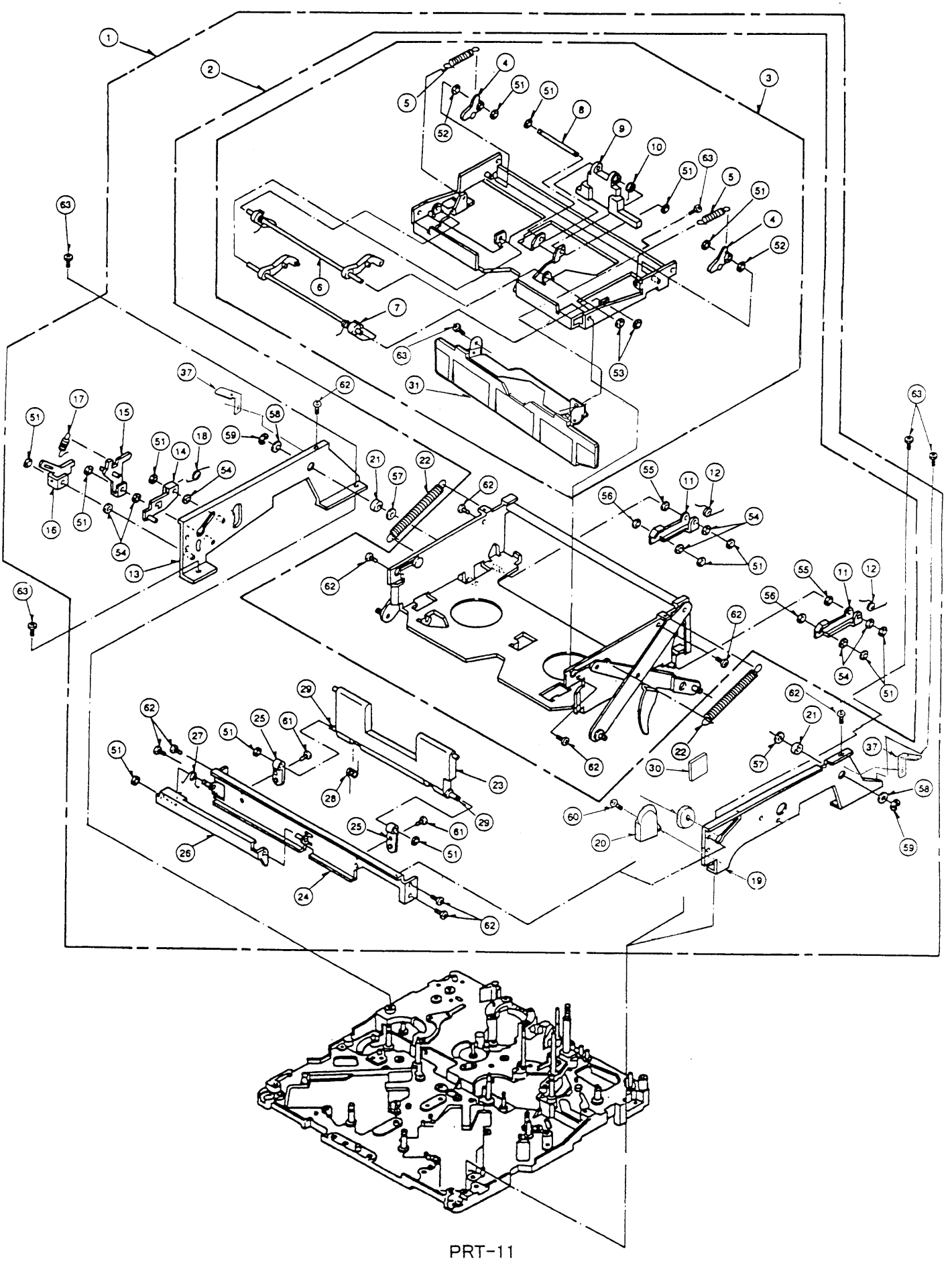
CHASSIS FRAME ASSEMBLY(3)



CHASSIS FRAME ASSEMBLY (3)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYF2689	CASSETTE COVER ASS'Y	1	
2	VYP7703	SIDE CASE (L) ASS'Y	1	
3	VMG1334	PROTECT RUBBER	1	
4	VMG1270	E.E CAP	1	
6	VMG1316	CASSETTE WATERPROOF GUM	1	
5	VMX1558	NYLON WASHER	5	
7	VXA6710	P.C.B. SUPPORT ANGLE	1	
8	VMP6380	ROTALLY ANGLE	1	
9	VMP6367	ROTALLY ANGLE	1	
10	VMP6368	ROTALLY ANGLE	1	
11	VHD0325	SCREW	2	
12	VMP6373	P.C.BOARD BOX	1	
13	VMP6374	P.C.BOARD BOX	1	
14	VMP6375	P.C.BOARD BOX	1	
15	VMP6376	P.C.BOARD BOX	1	
16	VMP6377	MMC P.C.B. HOLDER ANGLE	1	
17	VGQ5771	GUIDE RAIL	2	
18	VMS4766	SPACER	1	
19	VMS5504	POST	1	
20	VMG1313	GUM CAP D	2	
21	VEE0K19	V.MAIN-V.MOTHER CABLE	1	
22	VWJ15C2140L0	FLEXIBLE CABLE	1	
23	VWJ20C2170L0	FLAT CABLE	1	
24	VEE0J99	V.MOTHER-ECU CABLE	1	
25	VEE0L52	RF-POWER CABLE	1	
26	VEE0L54	V.SYS-POWER CABLE	1	
27	VEE0K05	V.MAIN-V.MOTHER CABLE	1	
28	VWJ12C2120L0	FLEXIBLE CABLE	1	
29	VWJ08C2085L0	FLEXIBLE CABLE	1	
30	VEE0K18	SERVO-V.MOTHER CABLE	1	
31	VEE0J56	MOTHER-DSP CABLE	1	
32	VSC5237	P.C.BOARD SHIELD	1	
33	VLF1446	FERRITE CORE	1	J0KD00000018
34	VMT0829	CUSHION	2	
35	J0KG00000011	FERRITE CORE	1	
36	VSC5162	SHIELD PLATE	1	
100	XSB3+16FCK	SCREW	3	
101	XSB3+10FCK	SCREW	1	
102	XSB3+30FCK	SCREW	1	
103	XSB3+6FZ	SCREW	3	
104	XWGV4Y8G	WASHER	2	
105	XYN26+C4	SCREW	12	
106	XTV26+6G	SCREW	4	
107	XYN26+K6	SCREW	7	
108	XSB2+6FX	SCREW	13	
109	XYN3+C8	SCREW	5	
110	XYN3+K6RS	SCREW	2	
111	XYN26+F6FX	SCREW	8	
112	XYN3+C6	SCREW	1	
E4	VEP23534A	PRE PROC P.C.BOARD	1	
E5	VEP000G7B	CAM MONITOR P.C.BOARD	1	
E6	VEP26234B	CAM SYSCON P.C.BOARD	1	
E7-1	VEP23530A	DSP MAIN P.C.BOARD	1	
E7-2	VEP23531A	MEMORY P.C.BOARD	1	
E8	VEP23500B	VIDEO OUT P.C.BOARD	1	
E9	VEP80B10A	VTR MOTHER P.C.BOARD	1	
E11	VEP80B38A	SERVO FLEX P.C.BOARD	1	
E10	VEP86303B	VTR SYSCON P.C.BOARD	1	
E12	VEP82224A	SERVO P.C.BOARD	1	
E13	VEP85179B	HEAD BUFF P.C.BOARD	1	
E14	VEP87104B	RF EQ P.C.BOARD	1	
E15	VEP81192C	POWER MAIN P.C.BOARD	1	
E16	VEP81204B	POWER SUB P.C.BOARD	1	
E34	VEP23532A	SD CARD P.C.BOARD	1	
E35	VEP20804A	INT CONNECT P.C.BOARD	1	
E36	VEP83462B	VIDEO MAIN P.C.BOARD	1	
E37	VEP83460B	HD SDI TX P.C.BOARD	1	
E38	VEP80B73A	SIDE BNC P.C.BOARD	1	

CASSETTE COMPARTMENT ASSEMBLY

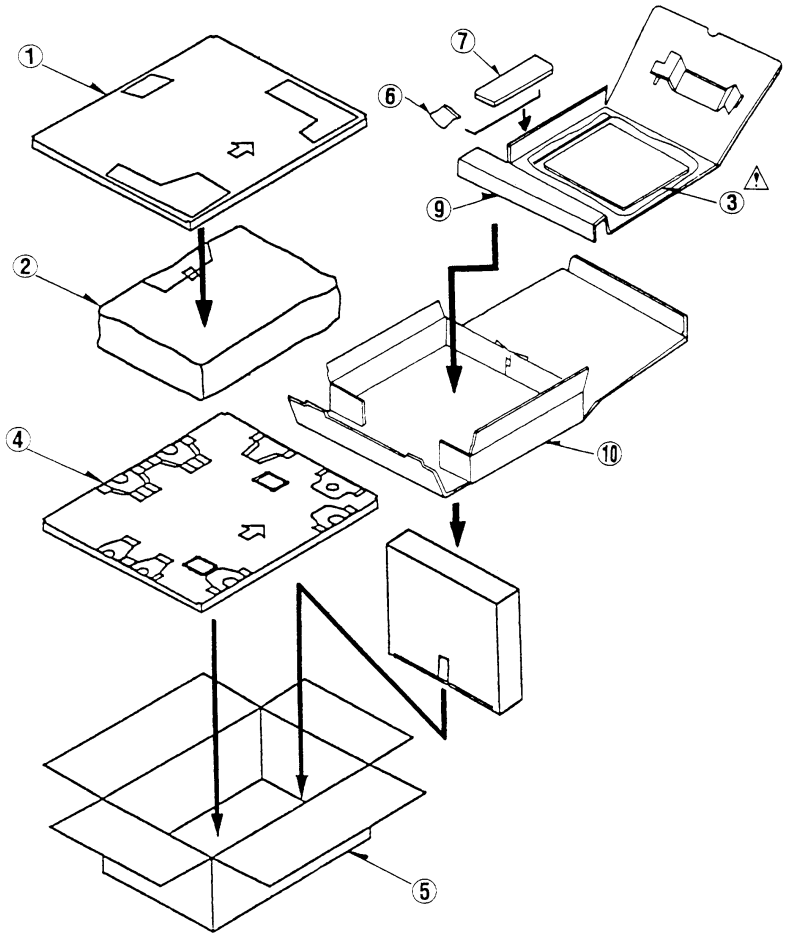


CASSETTE COMPARTMENT ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VXA6870	CASSETTE UP ASS'Y	1	
2	VXA6890	HOLDER ASS'Y	1	
3	VXA6893	TOP PLATE	1	
4	VXL2696	PRESSURE LEVER	2	
5	VMB3063	PRESSURE LEVER SPRING	2	
6	VXA6728	PROTECTOR SHAFT (2) L	1	
7	VXA6729	PROTECTOR SHAFT (2) R	1	
8	VMS6198	PROTECTOR SHAFT	1	
9	VMD3951	PROTECTOR SHAFT (1)	1	
10	VMB3135	SHAFT RELESE SPRING	1	
11	VML3259	RELEASE LEVER	2	
12	VMB3140	LOCK RELEASE LEVER SPRING	2	
13	VXA6885	SIDE PLATE (L)(1) ASS'Y	1	
14	VXL3050	RATCHET ARM	1	
15	VXL3060	RATCHET LOCK LEVER	1	
16	VXL3052	RATCHET LEVER	1	
17	VMB2981	RATCHET SPRING	1	
18	VMB3146	LOCK LEVER SPRING	1	
19	VMA6886	SIDE PLATE (R)A	1	
20	VXP0891	DUMPER	1	
21	VDP0967	MAIN ARM ROLLER	2	
22	VMB3133	UP SPRING	2	
23	VXA6853	PROTECTOR PLATE	1	
24	VXA6888	BACK PLATE	1	
25	VMD2793	SHAFT	2	
26	VML3555	RATCHET TIMING LEVER	1	
27	VMB2982	SPRING	1	
28	VMB3134	PLATE RELEASE SPRING	1	
29	VMS6211	PROTECTOR PLATE SHAFT	1	
31	VXA6730	WATER PROOF ASS'Y	1	
34	VMA0G36	SIDE RAIN FORCE L	1	
36	VMA0G35	SKIRT GUIDE R	1	
37	VMA0G37	SIDE RAIN FORCE R	1	
38	VDG1456	DUMPER GEAR	1	
51	VMX0967	CUT WASHER	14	
52	XWGV2D5G	WASHER	2	
53	VMX1079	CUT WASHER	2	
54	XWGV2Y5G	WASHER	7	
55	XWGV2Z5G	WASHER	2	
56	XWGV2F5G	WASHER	2	
57	XWGV4Y6G	WASHER	2	
58	XWGV3Y9G	WASHER	2	
59	XUC2FP	E-RING	2	
60	XQN16+A6	SCREW	1	
61	XQN2+A3	SCREW	2	
62	VHD1323	SCREW	10	
63	LMHD16064	SCREW	2	
64	VMX1061	CUT WASHER	1	

PACKING PARTS ASSEMBLY

Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.



PACKING PARTS ASSEMBLY

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	VYQ2047	CUSHION (U)	1	
2	VPF0230	POLYETHYLENE BAG	1	
⚠ 3	VQT9102	OPERATING INSTRUCTIONS	1	
4	VYQ2048	CUSHION (B)	1	
5	VPG0A84	PACKING CASE	1	
6	VEJ1672	BATTERY ADAPTOR ASS'Y	1	
7	VFC3443	SHOULDER BELT	1	
9	VPK2298	ACCESSORY BOX (B)	1	
10	VPK2280	ACCESSORY BOX (A)	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP20857A	PRE AMP P.C.BOARD	1	(RTL)
■ E2	VEP20855A	TG P.C.BOARD	1	(RTL)
■	VEP20884A	RESET SUB P.C.BOARD	1	(RTL)FOR VEP20855A
■ E3	VEP20856A	DRIVE P.C.BOARD	1	(RTL)
■ E4	VEP23534A	PRE PROCESS P.C.BOARD	1	(RTL)
■ E5	VEP000G7B	CAMERA MOTHER P.C.BOARD	1	(RTL)
■ E6	VEP26234B	CAMERA SYSCON P.C.BOARD	1	(RTL)
■ E7-1	VEP23530A	DSP MAIN P.C.BOARD	1	(RTL)
■ E7-2	VEP23531A	MEMORY P.C.BOARD	1	(RTL)
■ E8	VEP23500B	VIDEO OUT P.C.BOARD	1	(RTL)
■ E9	VEP80B10A	VTR MOTHER P.C.BOARD	1	(RTL)
■ E10	VEP86303B	VTR SYSCON P.C.BOARD	1	(RTL)
■ E11	VEP80B38A	SERVO FLEX P.C.BOARD	1	(RTL)
■ E12	VEP82224A	SERVO P.C.BOARD	1	(RTL)
■ E13	VEP85179B	HEAD BUFF P.C.BOARD	1	(RTL)
■ E14	VEP87104B	RF EQ P.C.BOARD	1	(RTL)
■ E15	VEP81192C	POWER MAIN P.C.BOARD	1	(RTL)
■ E16	VEP81204B	POWER SUB P.C.BOARD	1	(RTL)
■ E17	VEP84331A	AUDIO LCD P.C.BOARD	1	(RTL)
■ E18	VEP80B13B	REAR JACK P.C.BOARD	1	(RTL)
■ E19	VEP80B49A	POWER SW P.C.BOARD	1	(RTL)
■ E20	VEP80B15A	TOGGLE SW P.C.BOARD	1	(RTL)
■ E21	VEP80B47A	MONITOR SW P.C.BOARD	1	(RTL)
■ E22	VEP80B50A	SYNCHRO SW P.C.BOARD	1	(RTL)
■ E23	VEP80B51A	USER SW P.C.BOARD	1	(RTL)
■ E24	VEP80B53A	MENU SW P.C.BOARD	1	(RTL)
■ E25	VEP20854A	CCD SENSOR P.C.BOARD	1	(RTL)
■ E26	VEP00W08B	HEAD PHONE P.C.BOARD	1	(RTL)
■ E27	VEP80B75A	EXT DC P.C.BOARD	1	(RTL)
■ E28	VEP80B16B	FRONT TOGGLE P.C.BOARD	1	(RTL)
■ E29	VEP80B52A	JOG MENU P.C.BOARD	1	(RTL)
■ E30	VEP80B45A	REAR SW P.C.BOARD	1	(RTL)
■ E31	VEP84353A	CUE P.C.BOARD	1	(RTL)
■ E32	VEP86149A	OPERATE P.C.BOARD	1	(RTL)
■ E33	VEP80B17A	FRONT MIC P.C.BOARD	1	(RTL)
■ E34	VEP23532A	SD CARD P.C.BOARD	1	(RTL)
■ E35	VEP20804A	INT CONNECT P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E36	VEP83462B	VIDEO MAIN P.C.BOARD	1	(RTL)
■	VEP81225A	VIDEO MAIN SUB P.C.BOARD	1	(RTL) FOR VEP83462B
■ E37	VEP83460B	HD SDI TX P.C.BOARD	1	(RTL)
■ E38	VEP80A74A	BACK TALLY P.C.BOARD	1	(RTL)
■ E39	VEP80B73A	SIDE BNC P.C.BOARD	1	(RTL)
■ E40	VEP80B74A	SDI BNC P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E1	VEP20857A	PRE AMP P.C.BOARD	1	(RTL)
C1	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C2	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C3-C7	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C8	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C9	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C10	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C11,12	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C13	VCEA0JSS330	E.CAPACITOR 6.3V 33U	1	
C14,15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C16	VCEA0JSS330	E.CAPACITOR 6.3V 33U	1	
C17-20	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C21-23	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C101	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
C102	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C103,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C105	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C106	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C107	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C108	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C109,10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C111	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C112,13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C114	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C115	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C119-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C123	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C124,25	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C126	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C128,29	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C130	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
C131	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C132	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C201	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
C202	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C203,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C205	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C206	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C207	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C208	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C209,10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C211	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C212,13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C214	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C215	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C219-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C223	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C224,25	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C226	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C228,29	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C230	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
C231	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C232	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C301	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
C302	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C303,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C305	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C306	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C307	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C308	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C309,10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C311	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C312,13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C314	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C315	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C319-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C323	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C324,25	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C326	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C328,29	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C330	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
C331	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C332	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
DL2	VLD0417025	DELAY LINE	1	
DL101	VLD0419065	DELAY LINE	1	
DL201	VLD0419065	DELAY LINE	1	
DL301	VLD0419065	DELAY LINE	1	
FL1-L4	NFM41P11C204	FILTER	4	
FL101	J0E3005B0002	FILTER	1	
FL102	J0E1605B0002	FILTER	1	
FL201	J0E3005B0002	FILTER	1	
FL202	J0E1605B0002	FILTER	1	
FL301	J0E3005B0002	FILTER	1	
FL302	J0E1605B0002	FILTER	1	
IC1	LM4040CIX2.5	IC	1	
IC2	NJM062V	IC	1	
IC5-C9	TC7SZ08F	IC	5	
IC101,02	CLC505AJE	IC	2	C0ABAB000024
IC103	TC7W53F	IC	1	
IC104	CLC505AJE	IC	1	C0ABAB000024
IC201,02	CLC505AJE	IC	2	C0ABAB000024
IC203	TC7W53F	IC	1	
IC204	CLC505AJE	IC	1	C0ABAB000024
IC301,02	CLC505AJE	IC	2	C0ABAB000024
IC303	TC7W53F	IC	1	
IC304	CLC505AJE	IC	1	C0ABAB000024
J1,J2	VJR1094	TERMINAL	2	
P1	VJP3262E020	CONNECTOR (MALE)	1	
P2	VJP4395D008	CONNECTOR (MALE)	1	
P101	VJP4395C003	CONNECTOR (MALE)	1	
P201	VJP4395C003	CONNECTOR (MALE)	1	
P301	VJP4395C003	CONNECTOR (MALE)	1	
Q1	2SB1073	TRANSISTOR	1	
Q2	2SC4176	TRANSISTOR	1	B1ABDB000014
Q3	2SD1119	TRANSISTOR	1	
Q4	2SA1610-B	TRANSISTOR	1	
Q101-04	2SA1610-B	TRANSISTOR	4	
Q105	2SC4176	TRANSISTOR	1	B1ABDB000014
Q106	2SA1610-B	TRANSISTOR	1	
Q107,08	2SC4176	TRANSISTOR	2	B1ABDB000014
Q109,10	2SA1610-B	TRANSISTOR	2	
Q113	2SK508K512	TRANSISTOR	1	
Q201-04	2SA1610-B	TRANSISTOR	4	
Q205	2SC4176	TRANSISTOR	1	B1ABDB000014
Q206	2SA1610-B	TRANSISTOR	1	
Q207,08	2SC4176	TRANSISTOR	2	B1ABDB000014
Q209,10	2SA1610-B	TRANSISTOR	2	
Q213	2SK508K512	TRANSISTOR	1	
Q301-04	2SA1610-B	TRANSISTOR	4	
Q305	2SC4176	TRANSISTOR	1	B1ABDB000014
Q306	2SA1610-B	TRANSISTOR	1	
Q307,08	2SC4176	TRANSISTOR	2	B1ABDB000014
Q309,10	2SA1610-B	TRANSISTOR	2	
Q313	2SK508K512	TRANSISTOR	1	
QR1	UN5112	TRANSISTOR-RESISTOR	1	
R1	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R2	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R3	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R4	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R5	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R6	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R7	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R8	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R9	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R10	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R11,12	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R13	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R16,17	ERJ3RBD331	M.RESISTOR CH 1/16W 330	2	
R18,19	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R20	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R21	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
R22-25	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R26,27	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R28-30	ERJ3RBD101	M.RESISTOR CH 1/16W 100	3	
R101	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R102	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R103	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R104	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R105	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R106,07	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R108	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R109	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R110,11	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R112	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R113	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R114	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R115	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R116	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R117	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R118	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R119,20	ERJ3RBD301	M.RESISTOR CH 1/16W 300	2	
R121	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R122,23	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R124	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R125	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R129	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R130	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R131	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R132	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R135,36	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R138	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R141	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R145	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R146	ERJ3RBD301	M.RESISTOR CH 1/16W 300	1	
R147	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R148	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R149	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R150	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R151	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R152	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R153	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R201	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R202	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R203	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R204	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R205	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R206,07	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R208	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R209	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R210,11	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R212	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R213	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R214	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R215	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R216	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R217	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R218	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R219,20	ERJ3RBD301	M.RESISTOR CH 1/16W 300	2	
R221	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R222,23	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R224	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R225	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R229	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R230	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R231	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R232	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R235,36	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R238	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R241	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R245	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R246	ERJ3RBD301	M.RESISTOR CH 1/16W 300	1	
R247	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R248	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R249	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R250	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R251	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R252	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R253	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R301	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R303	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R304	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R305	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R306,07	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R308	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R309	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R310,11	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R312	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R313	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R314	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R315	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R316	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R317	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R318	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R319,20	ERJ3RBD301	M.RESISTOR CH 1/16W 300	2	
R321	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R322,23	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R324	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R325	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R329	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R330	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R331	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R332	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R335,36	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R338	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R341	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R345	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R346	ERJ3RBD301	M.RESISTOR CH 1/16W 300	1	
R347	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R348	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R349	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R350	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R351	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R352	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R353	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
TG1,G2	EYF6CU	TEST POINT	2	
TP1-P4	EYF6CU	TEST POINT	4	
TP101,02	EYF6CU	TEST POINT	2	
TP201,02	EYF6CU	TEST POINT	2	
TP301,02	EYF6CU	TEST POINT	2	
■ E2	VEP20855A	TG P.C.BOARD	1	(RTL)
■	VEP20884A	RESET SUB P.C.BOARD	1	(RTL)FOR VEP20855A
C1	ECST1VY105Z	T.CAPACITOR CH 35V 1U	1	FOR VEP20884A
C1,C2	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C5	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6	ECST1CV476	E.CAPACITOR CH 16V 47M	1	
C7	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C8-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C11	ECHU1C103JB	C.CAPACITOR CH 16V 0.1U	1	
C12	ECHU1H682JB	P.CAPACITOR 50V 6800P	1	
C13	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C14	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C15	ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C16	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C17	ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C19	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
C20-28	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C29	VCEA0JSS221	E.CAPACITOR 6.3V 220U	1	
C31	VCEA1ASS101	E.CAPACITOR 10V 100U	1	
C32-34	ECST1CV476	E.CAPACITOR CH 16V 47M	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C35-37	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	3	
C38-41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C42,43	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	2	
C44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C45	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C46	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C47	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C48,49	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C50	ECST1CV476	E.CAPACITOR CH 16V 47M	1	
C51	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C52	VCEA1AAP221	E.CAPACITOR 10V 220U	1	F2D1A2210001
C53	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C54	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C55,56	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C57	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C58,59	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C60	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C61,62	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C63,64	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C65,66	VCEA0JAP470	C.CAPACITOR 6.3V 47P	2	F2D0J4700001
C68,69	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C70	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C71-74	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C76-90	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	15	
C91,92	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C93	VCEA0JSS221	E.CAPACITOR 6.3V 220U	1	
C94-96	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C97	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
DL1	VLD0417015	DELAY LINE	1	
DL2	VLD0417035	DELAY LINE	1	
FL1-L5	NFM41P11C204	FILTER	5	
FL6	VLF1441P207	FILTER	1	
FL8	VLF1441P207	FILTER	1	
IC1	74HC4046MTCX	IC	1	
IC1	C0EBH0000063	IC	1	FOR VEP20884A
IC2	NJU7061V	IC	1	
IC3	TLCX74FT	IC	1	
IC4	TLCX86FT	IC	1	
IC5	TC7SZ00F	IC	1	
IC6	TC7SZ08F	IC	1	
IC7	TC7SZ00F	IC	1	
IC8	TLCX74FT	IC	1	
IC9-12	TC7SZ08F	IC	4	
IC13	TC7SZ00F	IC	1	
IC14	TC7W08FU	IC	1	
IC15	LM4040CIX2.5	IC	1	
IC16	LVX3245QSC	IC	1	
IC17,18	NJM062V	IC	2	
IC19	EP1K50-144-1	IC	1	
IC20	EPC2TC32	IC	1	
IC22	TVSA0161	IC	1	C0JBAA000099
IC23	NJM062V	IC	1	
IC24,25	TC7SZ08F	IC	2	
IC26	TLCX74FT	IC	1	
IC27	TC7SZ08F	IC	1	
J1,J2	VJR1094	TERMINAL	2	
L1	VLQ0319K100	COIL 10UH	1	G1C100K00023
L2	VLQ0772033NG	COIL	1	
L3,L4	VLQ0319K100	COIL 10UH	2	G1C100K00023
L7-21	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	15	ERJ6GEY0R00V
P1	VJP4064P060	CONNECTOR (MALE)	1	
P2	VJS3262D020	CONNECTOR (FEMALE)	1	
P3	VJS2907D010	CONNECTOR (FEMALE)	1	
P4	VJP4395D007	CONNECTOR (MALE)	1	
Q1	2SC3356-B	TRANSISTOR	1	
Q3	2SB1073-R	TRANSISTOR	1	
Q4	2SD1819A-R	TRANSISTOR	1	
Q5	2SB1073-R	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q6	2SD1119-R	TRANSISTOR	1	
Q7-Q9	2SB1073-R	TRANSISTOR	3	
Q10-12	2SD1819A-R	TRANSISTOR	3	
R1	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R1	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	FOR VEP20884A
R2	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R2	ERJ3RBD113	M.RESISTOR CH 1/16W 11K	1	FOR VEP20884A
R3	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	FOR VEP20884A
R4	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R5,R6	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	2	
R7	ERJ3RBD433	M.RESISTOR CH 1/16W 43K	1	
R8	ERJ3RBD622	M.RESISTOR CH 1/16W 6.2K	1	
R9	ERJ3RBD471	M.RESISTOR CH 1/16W 470	1	
R10	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R11	ERJ3RBD471	M.RESISTOR CH 1/16W 470	1	
R12	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R13,14	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R18,19	ERJ3RBD201	M.RESISTOR CH 1/16W 200	2	
R20	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R23-25	ERJ3RBD331	M.RESISTOR CH 1/16W 330	3	
R26-28	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	3	
R29	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R30	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R31-33	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	3	
R34-37	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	4	
R38-40	ERJ3RBD101	M.RESISTOR CH 1/16W 100	3	
R41	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R42	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R43	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R44	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R45	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R46	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R47	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R48	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R49	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R50	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R51	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R52	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R53	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R54	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R55-57	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R58,59	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	2	
R60	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R63	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R65	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R67	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R68	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R69,70	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R73,74	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R76,77	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R79-83	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	5	
R84-88	ERJ3RED100	M.RESISTOR CH 1/16W 10	5	
R90,91	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R92-94	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R97	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R102-07	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	6	
R108	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R109	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R130	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R131	ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
TG1,G2	EYF6CU	TEST POINT	2	
TP1-P3	EYF6CU	TEST POINT	3	
X1	VSX1108	CRYSTAL OSCILLATOR	1	
■ E3	VEP20856A	DRIVE P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1-C3	ECST1CV476	E.CAPACITOR CH 16V 47M	3	
C4	EEUFC1E471	E.CAPACITOR 25V 470U	1	
C5	EEUFC1E222	E.CAPACITOR 25V 2200U	1	
C6-C8	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C9	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C10,11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C12	ECST1AX226Z	T.CAPACITOR CH 10V 22U	1	
C13-15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C16	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C17,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C19	EEUFC1H2R2	E.CAPACITOR 50V 2.2U	1	
C20	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C21	ECST1EY155	T.CAPACITOR CH 25V 1.5U	1	
C22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C23	EEUFC1H100	E.CAPACITOR 50V 10U	1	
C24-28	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C29	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C30-34	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C35	ECST1VY105Z	T.CAPACITOR CH 35V 1U	1	
C36	VCEA1DAP101	E.CAPACITOR 20V 100U	1	
C37-41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C42	ECST1VY105Z	T.CAPACITOR CH 35V 1U	1	
C43,44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45	ECST1CV476	E.CAPACITOR CH 16V 47M	1	
C46-48	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C49	ECST1EY155	T.CAPACITOR CH 25V 1.5U	1	
C50	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C51	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C52	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
C53	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C54	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C55	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C56	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
C57-61	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C62	ECST1CV476	E.CAPACITOR CH 16V 47M	1	
C63,64	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C65	EEUFC1H100	E.CAPACITOR 50V 10U	1	
C66-68	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C69	ECST1EY155	T.CAPACITOR CH 25V 1.5U	1	
C70,71	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	2	
C72-77	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C78,79	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	2	
C80	VCEA1DAP101	E.CAPACITOR 20V 100U	1	
C81,82	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C83	ECUX1H102KBM	C.CAPCITOR CH 50V 1200P	1	
C84,85	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	2	
C86,87	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C88	ECST1VV106	E.CAPACITOR CH 35V 10M	1	
D1	MA142K	DIODE	1	
D2	MA153A	DIODE	1	
D3	MA121	DIODE	1	
IC1,C2	AK9813AF	IC	2	
IC3	51957BFP	IC	1	
IC4	NJM064V	IC	1	
IC5	NJM2902V	IC	1	
IC6	NJM062V	IC	1	
IC7	NJM064V	IC	1	
IC8	NJM062V	IC	1	
IC9	UPD16510GR	IC	1	
IC11,12	LM4040CIX2.5	IC	2	
IC13	XC62FP3002M	IC	1	
J2,J3	VJR1094	TERMINAL	2	
L1-L5	VLP0321A300	FERRITE CORE	5	
P1	VJP4401D031	CONNECTOR (MALE)	1	
P2	VJS4064K060E	CONNECTOR (FEMALE)	1	
P3	VJP3808C050	CONNECTOR (MALE)	1	
Q1,Q2	2SC3734B24	TRANSISTOR	2	
Q3	2SD1119-R	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q4	2SA1610-B	TRANSISTOR	1	
Q5	2SB1073-R	TRANSISTOR	1	
Q6	2SC4176	TRANSISTOR	1	B1ABDB000014
Q7	2SC3736	TRANSISTOR	1	
Q8	2SA1463	TRANSISTOR	1	
Q9	2SB1073-R	TRANSISTOR	1	
Q10	2SC4176	TRANSISTOR	1	B1ABDB000014
Q11	2SB1073-R	TRANSISTOR	1	
Q12	2SC4176	TRANSISTOR	1	B1ABDB000014
Q13	2SC3736	TRANSISTOR	1	
Q14	2SA1463	TRANSISTOR	1	
Q15	2SB1073-R	TRANSISTOR	1	
Q16	2SC4176	TRANSISTOR	1	B1ABDB000014
Q17	2SC3736	TRANSISTOR	1	
Q18	2SA1463	TRANSISTOR	1	
Q19	2SB1073-R	TRANSISTOR	1	
Q20	2SC4176	TRANSISTOR	1	B1ABDB000014
Q21	2SC3736	TRANSISTOR	1	
Q22	2SA1463	TRANSISTOR	1	
Q23	2SD1819A-R	TRANSISTOR	1	
Q24	2SB1218A	TRANSISTOR	1	
Q25	2SD1119-R	TRANSISTOR	1	
Q26	2SA1610-B	TRANSISTOR	1	
Q27	2SD1819A-R	TRANSISTOR	1	
Q28	2SB1218A	TRANSISTOR	1	
Q31	2SD1819A-R	TRANSISTOR	1	
Q32	2SB1218A	TRANSISTOR	1	
Q35	2SB1073-R	TRANSISTOR	1	
Q36	2SC4176	TRANSISTOR	1	B1ABDB000014
R1	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R2-R4	EXB24V224J	COMBI.R-R 220K	3	EXB24V224JX
R5,R6	ERJ14YJ4R7	M.RESISTOR CH 1/4W 4.7	2	
R7	EXB24V224J	COMBI.R-R 220K	1	EXB24V224JX
R8-10	ERJ3RBD101	M.RESISTOR CH 1/16W 100	3	
R12-14	ERJ3RBD101	M.RESISTOR CH 1/16W 100	3	
R15	EXB24V224J	COMBI.R-R 220K	1	EXB24V224JX
R16,17	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	2	
R18	EXB24V224J	COMBI.R-R 220K	1	EXB24V224JX
R19-21	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	3	
R23	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R24,25	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R26,27	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R28	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R29	ERJ3RBD122	M.RESISTOR CH 1/16W 1.2K	1	
R30	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R31	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R32	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R33	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R34	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R35	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R36	ERJ3RBD113	M.RESISTOR CH 1/16W 11K	1	
R37	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R38	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R39	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R40,41	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R42	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R43	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R44	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R45-47	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R48	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R49	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R51	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R52	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R53	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R54	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R55	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R56	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R58	ERJ3RBD912	M.RESISTOR CH 1/16W 9.1K	1	
R59	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R60	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R61	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R62	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R63	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R64	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R65,66	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R67	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
R68	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R69	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R70	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R71	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R72,73	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R75	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R76	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R77	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
R78	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R79	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R80	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R81	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R82	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R83	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R84	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R85	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R86	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
R87	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R88	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R89	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R90	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R91	ERJ14Y0R00	M.RESISTOR CH 1/4W 0	1	
R92	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R93	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R94	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R95	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R96	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R97	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R98	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R99	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R100-02	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	3	
R103	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R104	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R105	ERJ3RBD113	M.RESISTOR CH 1/16W 11K	1	
R106	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R107	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R108	ERJ3RBD623	M.RESISTOR CH 1/16W 62K	1	
R109	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R110	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R111	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R112	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R113	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R114	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R115	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R116	ERJ3RBD623	M.RESISTOR CH 1/16W 62K	1	
R117	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	1	
R118	ERJ3RBD912	M.RESISTOR CH 1/16W 9.1K	1	
R119	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R120	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R122	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R123	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R124	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R125	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R126	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R128	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R129	ERJ3RBD623	M.RESISTOR CH 1/16W 62K	1	
R130	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R131	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R132	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
TG1	EYF6CU	TEST POINT	1	
■ E4	VEP23534A	PRE PROCESS P.C.BOARD	1	(RTL)
C101,02	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C104	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C105,06	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C109,10	ECST1CX225Z	T.CAPACITOR CH 16V 2.2U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C111	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C112	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C113	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C114	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C116-18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C119	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C121	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C122,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C124	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C125	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C126	ECUX1H0R5CCV	C.CAPACITOR CH 50V 0.5P	1	
C127	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C128,29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C131	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C132,33	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C135,36	ECST1AX226Z	T.CAPACITOR CH 10V 22U	2	
C137	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C138	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C139	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C140	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C141	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C142	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C143	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C144	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C145	ECUX1H020CCV	C.CAPACITOR CH 50V 2P	1	
C147	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C148-53	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C154	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C155	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C156	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C158	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C159	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C160,61	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	2	
C162	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C163-65	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C166,67	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	2	
C168-76	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C201,02	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C204	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C205,06	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C209,10	ECST1CX225Z	T.CAPACITOR CH 16V 2.2U	2	
C211	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C212	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C213	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C214	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C216-18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C219	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C221	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C222,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C224	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C225	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C226	ECUX1H0R5CCV	C.CAPACITOR CH 50V 0.5P	1	
C227	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C228,29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C231	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C232,33	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C235,36	ECST1AX226Z	T.CAPACITOR CH 10V 22U	2	
C237	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C238	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C239	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C240	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C241	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C242	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C243	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C244	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C245	ECUX1H020CCV	C.CAPACITOR CH 50V 2P	1	
C247	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C248-53	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C255	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C258	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C259	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C260,61	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	2	
C262	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C263-65	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C266,67	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C268-76	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C301,02	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C304	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C305,06	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C309,10	ECST1CX225Z	T.CAPACITOR CH 16V 2.2U	2	
C311	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C312	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C313	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C314	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C316-18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C319	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C321	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C322,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C324	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C325	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C326	ECUX1H0R5CCV	C.CAPACITOR CH 50V 0.5P	1	
C327	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C328,29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C331	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C332,33	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C335,36	ECST1AX226Z	T.CAPACITOR CH 10V 22U	2	
C337	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C338	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C339	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C340	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C341	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C342	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C343	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C344	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C345	ECUX1H020CCV	C.CAPACITOR CH 50V 2P	1	
C347	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C348-53	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C354	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C355	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C356	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C358	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C359	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C360,61	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	2	
C362	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C363-65	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C366,67	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	2	
C368-76	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C401-13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	13	
C414	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C415-17	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C419-21	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C501	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C502	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C503-05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C506,07	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C508,09	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C510,11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C512	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C513,14	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C515	ECST1AX226Z	T.CAPACITOR CH 10V 22U	1	
C516-21	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C522-24	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	3	
C525-27	ECST1CY335Z	T.CAPACITOR CH 16V 3.3U	3	
C528-31	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C532-34	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	3	
C535-37	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C538-40	ECST1CX106Z	T.CAPACITOR CH 16V 10U	3	
C541-43	ECST1DY335	T.CAPACITOR CH 20V 3.3U	3	
C544-46	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	3	
C547	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C549,50	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
D501-03	MA3J14300L	DIODE	3	
DL201	VLD0419065	DELAY LINE	1	
IC101	CLC450AJE	IC	1	
IC102	CLC505AJE	IC	1	C0ABAB000024
IC103	THC4053FT	IC	1	
IC104	NJM072BV	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC105	CLC505AJE	IC	1	C0ABAB000024
IC106	MC1495D	IC	1	
IC107	NJM062V	IC	1	
IC108	CLC505AJE	IC	1	C0ABAB000024
IC109	THC4053FT	IC	1	
IC110	CLC505AJE	IC	1	C0ABAB000024
IC111-13	NJM062V	IC	3	
IC114	THC4053FT	IC	1	
IC115	TC7S00FU	IC	1	
IC201	CLC450AJE	IC	1	
IC202	CLC505AJE	IC	1	C0ABAB000024
IC203	THC4053FT	IC	1	
IC204	NJM072BV	IC	1	
IC205	CLC505AJE	IC	1	C0ABAB000024
IC206	MC1495D	IC	1	
IC207	NJM062V	IC	1	
IC208	CLC505AJE	IC	1	C0ABAB000024
IC209	THC4053FT	IC	1	
IC210	CLC505AJE	IC	1	C0ABAB000024
IC211-13	NJM062V	IC	3	
IC214	THC4053FT	IC	1	
IC215	TC7S00FU	IC	1	
IC301	CLC450AJE	IC	1	
IC302	CLC505AJE	IC	1	C0ABAB000024
IC303	THC4053FT	IC	1	
IC304	NJM072BV	IC	1	
IC305	CLC505AJE	IC	1	C0ABAB000024
IC306	MC1495D	IC	1	
IC307	NJM062V	IC	1	
IC308	CLC505AJE	IC	1	C0ABAB000024
IC309	THC4053FT	IC	1	
IC310	CLC505AJE	IC	1	C0ABAB000024
IC311-13	NJM062V	IC	3	
IC314	THC4053FT	IC	1	
IC315	TC7S00FU	IC	1	
IC401	TC4W53FU	IC	1	
IC403	AK9813AF	IC	1	
IC404,05	LTC1458LIG	IC	2	
IC406	NJM064V	IC	1	
IC408	THC4053FT	IC	1	
IC501	LM4040CIX2.5	IC	1	
IC502	NJM062V	IC	1	
IC503	XC62FP3302M	IC	1	
IC504-06	C0ABGA000019	IC	3	
IC507	NJM064V	IC	1	
IC508	THC4053FT	IC	1	
IC509-11	MC1495D	IC	3	
IC513	TC7SET08F	IC	1	
IC514	TC4W53FU	IC	1	
L502-04	VLP0321A300	FERRITE CORE	3	
P1	VJP4064Q160	CONNECTOR (MALE)	1	K1KBG0B00002
P2	VJP4395D008	CONNECTOR (MALE)	1	
Q101	2SC4176	TRANSISTOR	1	B1ABDB000014
Q102	2SA1610-B	TRANSISTOR	1	
Q103,04	2SK508K512	TRANSISTOR	2	
Q105,06	2SA1610-B	TRANSISTOR	2	
Q107	2SC4176	TRANSISTOR	1	B1ABDB000014
Q108,09	2SK508K512	TRANSISTOR	2	
Q110	2SC4176	TRANSISTOR	1	B1ABDB000014
Q111	2SA1610-B	TRANSISTOR	1	
Q112	2SK508K512	TRANSISTOR	1	
Q113,14	2SA1610-B	TRANSISTOR	2	
Q115	2SC4176	TRANSISTOR	1	B1ABDB000014
Q201	2SC4176	TRANSISTOR	1	B1ABDB000014
Q202	2SA1610-B	TRANSISTOR	1	
Q204	2SK508K512	TRANSISTOR	1	
Q205,06	2SA1610-B	TRANSISTOR	2	
Q207	2SC4176	TRANSISTOR	1	B1ABDB000014
Q208,09	2SK508K512	TRANSISTOR	2	
Q210	2SC4176	TRANSISTOR	1	B1ABDB000014
Q211	2SA1610-B	TRANSISTOR	1	
Q212	2SK508K512	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q213,14	2SA1610-B	TRANSISTOR	2	
Q215	2SC4176	TRANSISTOR	1	B1ABDB000014
Q301	2SC4176	TRANSISTOR	1	B1ABDB000014
Q302	2SA1610-B	TRANSISTOR	1	
Q303,04	2SK508K512	TRANSISTOR	2	
Q305,06	2SA1610-B	TRANSISTOR	2	
Q307	2SC4176	TRANSISTOR	1	B1ABDB000014
Q308,09	2SK508K512	TRANSISTOR	2	
Q310	2SC4176	TRANSISTOR	1	B1ABDB000014
Q311	2SA1610-B	TRANSISTOR	1	
Q312	2SK508K512	TRANSISTOR	1	
Q313,14	2SA1610-B	TRANSISTOR	2	
Q315	2SC4176	TRANSISTOR	1	B1ABDB000014
Q401	2SC3930-B	TRANSISTOR	1	
Q402	2SA1532-B	TRANSISTOR	1	
Q403	2SC3938-R	TRANSISTOR	1	
Q404,05	2SA1532-B	TRANSISTOR	2	
Q406	2SD1819A-R	TRANSISTOR	1	
Q501	2SB1073	TRANSISTOR	1	
Q502	2SD1119	TRANSISTOR	1	
Q503	2SC4176	TRANSISTOR	1	B1ABDB000014
Q504	2SA1610-B	TRANSISTOR	1	
Q505-07	2SC4176	TRANSISTOR	3	B1ABDB000014
QR401	UN5214	TRANSISTOR-RESISTOR	1	
QR402-06	UN5112	TRANSISTOR-RESISTOR	5	
QR407	UN5212	TRANSISTOR-RESISTOR	1	
R1	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R101	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R102	ERJ3RBD433	M.RESISTOR CH 1/16W 43K	1	
R103	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R104,05	ERJ3RBD681	M.RESISTOR CH 1/16W 680	2	
R106	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R107	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R108	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R109	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R110	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R111	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R112	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R113	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R114	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R115	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R116	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R117	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R118	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R119	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R120	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R121	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R122	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R123	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R124	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R125	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R126	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R127	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R128	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R129	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R130	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R131	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R132	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R133	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R135	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R136	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R138	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R139	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R140	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R141	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R143	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R144	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R145	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R146	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R147,48	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	2	
R149	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R150	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R151	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R152	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R153	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R154	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R155	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R156	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R157	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R158	ERJ3RBD751	M.RESISTOR CH 1/16W 750	1	
R159	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R160	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R161	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R162	ERJ3RBD241	M.RESISTOR CH 1/16W 240	1	
R163	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R164	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R165	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R166	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R167	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R168	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R169	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R170	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R171	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R172	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R173	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R174	ERJ3RBD163	M.RESISTOR CH 1/16W 16K	1	
R175	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R176	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R177	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R178	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R179	ERJ3RBD162	M.RESISTOR CH 1/16W 1.6K	1	
R180	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R181	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R183	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R184	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R185	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R186	ERJ3RBD271	M.RESISTOR CH 1/16W 270	1	
R187	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R189	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R191	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R192	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R193	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R194	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R195	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R196,97	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R198	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R199	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R201	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R202	ERJ3RBD433	M.RESISTOR CH 1/16W 43K	1	
R203	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R204,05	ERJ3RBD621	M.RESISTOR CH 1/16W 620	2	
R206	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R207	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R208	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R209	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R211	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R212	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R213	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R214	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R215	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R217	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R218	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R220	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R221	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R222	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R223	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R224	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R225	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R226	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R227	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R228	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R229	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R230	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R231	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R232	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R233	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R235	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R236	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R238	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R239	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R240	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R241	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R243	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R244	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R245	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R246	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R247,48	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	2	
R249	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R250	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R251	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R252	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R253	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R254	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R255	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R256	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R257	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R258	ERJ3RBD751	M.RESISTOR CH 1/16W 750	1	
R259	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R260	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R261	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R262	ERJ3RBD241	M.RESISTOR CH 1/16W 240	1	
R263	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R264	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R265	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R266	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R267	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R268	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R269	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R270	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R271	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R272	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R273	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R274	ERJ3RBD163	M.RESISTOR CH 1/16W 16K	1	
R275	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R276	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R277	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R278	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R279	ERJ3RBD162	M.RESISTOR CH 1/16W 1.6K	1	
R280	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R281	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R283	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R284	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R285	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R286	ERJ3RBD271	M.RESISTOR CH 1/16W 270	1	
R287	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R289	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R291	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R292	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R293	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R294	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R295	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R296,97	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R298	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R299	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R301	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R302	ERJ3RBD433	M.RESISTOR CH 1/16W 43K	1	
R303	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R304,05	ERJ3RBD561	M.RESISTOR CH 1/16W 560	2	
R306	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R307	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R308	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R309	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R310	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R311	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R312	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R313	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R314	ERJ3RBD112	M.RESISTOR CH 1/16W 1.1K	1	
R315	ERJ3RBD471	M.RESISTOR CH 1/16W 470	1	
R316	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R317	ERJ3RBD122	M.RESISTOR CH 1/16W 1.2K	1	
R318	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R319	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R320	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R321	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R322	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R323	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R324	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R325	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R326	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R327	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R328	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R329	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R330	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R331	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R332	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R333	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R335	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R336	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R338	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R339	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R340	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R341	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R343	ERJ3RBD302	M.RESISTOR CH 1/16W 3K	1	
R344	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R345	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R346	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R347,48	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	2	
R349	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R350	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R351	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R352	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R353	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R354	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R355	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R356	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R357	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R358	ERJ3RBD751	M.RESISTOR CH 1/16W 750	1	
R359	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R360	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R361	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R362	ERJ3RBD241	M.RESISTOR CH 1/16W 240	1	
R363	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R364	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R365	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R366	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R367	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R368	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R369	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R370	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R371	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R372	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R373	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R374	ERJ3RBD163	M.RESISTOR CH 1/16W 16K	1	
R375	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R376	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R377	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R378	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R379	ERJ3RBD162	M.RESISTOR CH 1/16W 1.6K	1	
R380	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R381	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R383	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R384	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R385	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R386	ERJ3RBD271	M.RESISTOR CH 1/16W 270	1	
R387	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R389	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R391	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	1	
R392	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R393	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R394	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R395	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R396,97	ERJ3RBD101	M.RESISTOR CH 1/16W 100	2	
R398	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R399	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R401,02	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R404-06	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	3	
R407	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R408	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R409	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R411	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R413-15	ERJ3RED100	M.RESISTOR CH 1/16W 10	3	
R417-19	ERJ3RED100	M.RESISTOR CH 1/16W 10	3	
R420-25	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	6	
R426,27	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R428-30	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R431	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R432	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R433	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R434	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R435	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R436	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R437	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R438	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R439-41	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	3	
R442	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R443-45	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	3	
R446-50	ERJ3RED100	M.RESISTOR CH 1/16W 10	5	
R451-55	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	5	
R456-63	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	8	
R464	ERJ3RBD682	M.RESISTOR CH 1/16W 6.8K	1	
R465,66	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R468	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R469	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R470	ERJ3RBD132	M.RESISTOR CH 1/16W 1.3K	1	
R471	ERJ3RBD113	M.RESISTOR CH 1/16W 11K	1	
R473	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R474	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R479	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R482	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R483	ERJ3RBD822	M.RESISTOR CH 1/16W 8.2K	1	
R484	ERJ3RBD511	M.RESISTOR CH 1/16W 510	1	
R485-87	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	3	
R488-90	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R495	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R496	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R497	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R498	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R499	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R501	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R502	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R503	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R504	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R505	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R506	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R507	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R508,09	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R510	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R511,12	ERJ3RBD331	M.RESISTOR CH 1/16W 330	2	
R519-27	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	9	
R528-30	ERJ3RBD753	M.RESISTOR CH 1/16W 75K	3	
R531-33	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	3	
R539-41	ERJ3RED154	M.RESISTOR CH 1/16W 150K	3	
R542-44	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	3	
R545-47	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R548-50	ERJ3RED304	M.RESISTOR CH 1/16 300K	3	
R551-53	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	3	
R554-56	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	3	
R557-59	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R560-62	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	3	
R563-65	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R566-68	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	3	
R569-71	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	3	
R572-74	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	3	
R575-77	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	3	
R578-80	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	3	
R581-83	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	3	
R584-86	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	3	
R594	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R595	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R596	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R597	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R600-02	ERJ3RED100	M.RESISTOR CH 1/16W 10	3	
R702	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R704	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R802	ERJ6RBD103	M.RESISTOR CH 1/10W 10K	1	
R804	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R902	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R904	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
TG501,02	EYF6CU	TEST POINT	2	
TP100-02	EYF6CU	TEST POINT	3	
TP200-02	EYF6CU	TEST POINT	3	
TP300-02	EYF6CU	TEST POINT	3	
VR101	VRV0161B101	V.RESISTOR 100	1	
VR201	VRV0161B101	V.RESISTOR 100	1	
VR301	VRV0161B101	V.RESISTOR 100	1	
VR401-03	VRV0303B501	V.RESISTOR 500	3	
VR404,05	VRV0303B103	V.RESISTOR 10K	2	
VR501	VRV0303B103	V.RESISTOR 10K	1	
		MISCELLANEOUS		
	XSB2+6FX	SCREW	1	
	XNG2E	NUT	1	
	VGQ4618	NUMBER PLATE (3)	1	
■ E5	VEP000G7B	CAMERA MOTHER P.C.BOARD	1	(RTL)
C1	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C2-12	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	11	
FG3,G4	VJR1094	TERMINAL	2	
L1-11	VLP0353	COIL	11	
L12-15	VLP0147	COIL	4	
L16-21	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	6	ERJ6GEY0R00V
L22-24	VLP0147	COIL	3	
P1-P5	VJS4064N160E	CONNECTOR (FEMALE)	5	K1KAG0A00006
P6	VJP4401D031	CONNECTOR (MALE)	1	
P7	VJP4395D012	CONNECTOR (MALE)	1	
P8	VJP4395D014	CONNECTOR (MALE)	1	
P9	VJP4395D007	CONNECTOR (MALE)	1	
P10	VJP4395D008	CONNECTOR (MALE)	1	
P11	VJS2907D015	CONNECTOR (FEMALE)	1	K1MN15B00011
P13	VJS4064K020E	CONNECTOR (FEMALE)	1	
P14	VJP4395D002	CONNECTOR (MALE)	1	
P15	VJP4395D003	CONNECTOR (MALE)	1	
P16	VJP4395D008	CONNECTOR (MALE)	1	
R21-30	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	10	ERJ3GEY0R00V
TG1,G2	EYF6CU	TEST POINT	2	
■ E6	VEP26234B	CAMERA SYSCON P.C.BOARD	1	(RTL)
C1-C8	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	8	
C11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C13-17	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C18	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C19,20	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C21-23	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C24	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C25	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C26-28	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C29	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C30	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C31,32	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	2	ECUV1H150JCV
C33	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C34	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C35	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C36	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C37	ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C38,39	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C49	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C100,01	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C102	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C103,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C107,08	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C110,11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C200,01	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C202,03	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C204	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C205	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	1	
C206	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C207	ECST1AX106Z	T.CAPACITOR CH 10V 10U	1	
C208,09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C210,11	ECST1AX106Z	T.CAPACITOR CH 10V 10U	2	
C212-21	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	10	
C300-02	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C303	ECST1VY334Z	T.CAPACITOR CH 35V 0.33U	1	
C304	VCK0152	C.CAPACITOR	1	F1L1C1060016
C305,06	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C307	ECST1VY334Z	T.CAPACITOR CH 35V 0.33U	1	
C308	VCK0152	C.CAPACITOR	1	F1L1C1060016
C311	ECST1VY334Z	T.CAPACITOR CH 35V 0.33U	1	
C312	VCK0152	C.CAPACITOR	1	F1L1C1060016
C315,16	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C317,18	ECST1CX106Z	T.CAPACITOR CH 16V 10U	2	
C319-21	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C322	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C323,24	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C325	ECST1CC336Z	T.CAPACITOR CH 16V 33U	1	
C326,27	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C328	ECST1CC336Z	T.CAPACITOR CH 16V 33U	1	
C329	VCK0152	C.CAPACITOR	1	F1L1C1060016
C330-32	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C333	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C334	VCK0152	C.CAPACITOR	1	F1L1C1060016
C335,36	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C337	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C338	VCK0152	C.CAPACITOR	1	F1L1C1060016
C339-41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C401	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C402-04	ECST1CX106Z	T.CAPACITOR CH 16V 10U	3	
C405,06	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C407,08	ECST1CX106Z	T.CAPACITOR CH 16V 10U	2	
C409	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C410	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C412,13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C414	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C415,16	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C417	ECST1VX105	T.CAPACITOR CH 35V 1U	1	
C418-21	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	4	
C422,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
D1	MA8051-H	DIODE	1	
D3	MA8051-H	DIODE	1	
D5	MA8051-H	DIODE	1	
D10,11	MA3J14300L	DIODE	2	
D12-23	MA714	DIODE	12	
IC1	HD64F2633TE	IC	1	
IC2	NJM2902V	IC	1	
IC5	TLCX244FT	IC	1	
IC6	TC7SZ00F	IC	1	
IC7	TC7SET08F	IC	1	
IC8	FST3253MTC	IC	1	
IC9	TC7SZ08F	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC10,11	TC7SZ126F	IC	2	
IC13	51957BFP	IC	1	
IC14	TVHC08FT	IC	1	
IC15	TLCX541FT	IC	1	
IC16	NJM062V	IC	1	
IC100	EPM7128AT-10	IC	1	C1ZBZ0001677
IC200	TLVX4245FS	IC	1	
IC201	STK12C68S45	IC	1	
IC202	MBLV160BE70T	IC	1	
IC203	T55V16256T15	IC	1	
IC205,06	TLCX16244A	IC	2	
IC211	TVHT541FT	IC	1	
IC300	TC7SET00F	IC	1	
IC301	THC4053FT	IC	1	
IC302,03	NJM064V	IC	2	
IC304	LTC1660IGN	IC	1	C0FBBF000026
IC305	TC7SET00F	IC	1	
IC306	NJM2904V	IC	1	
IC307	NJM064V	IC	1	
IC308	THC4053FT	IC	1	
IC309	NJM064V	IC	1	
IC401	XC62KN4502P	IC	1	
IC402	XC62FP4502PR	IC	1	
IC403	NJM78L09UA	IC	1	C0CBAHC00002
IC404	TLCX157F	IC	1	
ID1	VVVSI3616	SOFTWARE	1	
ID100	VVVSI3619	SOFTWARE	1	
ID202A	VVVSI3617	SOFTWARE	1	
ID202B	VVVSI3618	SOFTWARE	1	
L1	VLP0353	COIL	1	
L2	VLP0321A300	FERRITE CORE	1	
L100	VLP0321A300	FERRITE CORE	1	
L200-02	VLP0321A300	FERRITE CORE	3	
L203-07	VLP0147	COIL	5	
L400-69	VLF1147A680	FILTER	70	
L470-76	VLP0321A300	FERRITE CORE	7	
L477	VLF1147A680	FILTER	1	
P1	VJP4064Q160	CONNECTOR (MALE)	1	K1KBG0B00002
P2	VJS3791B020	CONNECTOR (FEMALE)	1	
P3	VJP4395D015	CONNECTOR (MALE)	1	
P100	VJP3125B008	CONNECTOR (MALE)	1	
QR100-03	UN5213	TRANSISTOR-RESISTOR	4	
R1	ERJ3RBD682	M.RESISTOR CH 1/16W 6.8K	1	
R2	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R3	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R4	ERJ3RBD682	M.RESISTOR CH 1/16W 6.8K	1	
R5	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R6	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R7	ERJ3RBD682	M.RESISTOR CH 1/16W 6.8K	1	
R8	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R9	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R10	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R12	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R13	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R15	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R16,17	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R18,19	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R23	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R26	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R29	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R35-37	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R38,39	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R40-42	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R43	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R44	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R45	ERJ3GEYJ302	M.RESISTOR CH 1/16W 3K	1	
R46	ERJ3GEYJ201	M.RESISTOR CH 1/16W 200	1	
R47-52	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	ERJ3GEY0R00V
R53	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R54	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R56,57	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R60	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R61	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R62	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R64	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R65,66	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R68	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R69,70	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R79,80	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R85,86	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R88,89	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R93-96	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	ERJ3GEYJ103V
R97	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R101,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R103-06	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R108	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R110	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R115,16	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R117	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R118	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R119-22	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R127,28	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R129-32	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R135	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R139,40	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R142	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R143-45	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R201	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R202	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R204	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R207-22	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	16	ERJ3GEY0R00V
R227	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R228-36	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	9	ERJ3GEY0R00V
R246-48	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R251-55	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	ERJ3GEY0R00V
R256,57	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R302	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R303	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R304,05	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	2	
R306	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R308,09	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R310	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R311	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R312,13	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	2	
R314	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R316,17	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R318	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R319	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R320,21	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	2	
R322	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R324,25	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R326	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R327	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R328,29	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R330	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R331	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R332	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R334-37	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	4	
R339	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R340	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R341	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R342	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R343	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R344	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R345	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R346	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R349	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R351	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R352	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R353	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R354	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R355	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R357	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R358	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R361	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R363	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R364	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R365	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R366	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R367	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R368	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R371	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R382-87	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	ERJ3GEY0R00V
R400-03	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	4	
R405-16	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	12	
R429,30	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R431	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R432-35	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R436-38	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R440	ERDS2TJ473	C.RESISTOR 1/4W 47K	1	D0AE473JA045
R450	ERDS2TJ391	C.RESISTOR 1/4W 390	1	
SW1	VSS0342	SWITCH	1	K0D112B00056
TG401,02	EYF6CU	TEST POINT	2	
TP1,P2	EYF6CU	TEST POINT	2	
TP200,01	EYF6CU	TEST POINT	2	
TP403-05	EYF6CU	TEST POINT	3	
X1	VSX0821	CRYSTAL OSCILLATOR	1	H0J160500014
		MISCELLANEOUS		
	XSB2+6FX	SCREW	3	
	XNG2E	NUT	1	
	VGQ4617	NUMBER PLATE (2)	1	
■ E7-1	VEP23530A	DSP MAIN P.C.BOARD	1	(RTL)
C103-11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C112-17	ECST1CX156Z	T.CAPACITOR CH 16V 15U	6	
C122	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C124	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C126-34	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C135,36	ECST1AX336	E.CAPACITOR 6.3V 120U	2	
C137,38	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C139	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C140-44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C145	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C146,47	ECHU1C104J	P.CAPACITOR 16V 0.1U	2	
C148	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C149	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C150	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C151-59	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C160,61	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C168-73	ECST0JY156Z	T.CAPACITOR CH6.3V 15U	6	
C174-91	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	18	
C192-97	ECST0JY156Z	T.CAPACITOR CH6.3V 15U	6	
C198-00	ECST1AY106Z	T.CAPACITOR CH 10V 10U	3	
C201-12	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	12	
C213-15	ECST1AY106Z	T.CAPACITOR CH 10V 10U	3	
C216,17	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C303,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C305	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C306	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C307-23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	17	
C324	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C325	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C326	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C327-32	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C333	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C334-36	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	3	
C337	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C339-42	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C343	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C344	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C345,46	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C349	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C350,51	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C353	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C354-56	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	3	
C358,59	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C360	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C361	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C363,64	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	2	
C365,66	ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C367-81	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	15	
C383-88	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C501-05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C506,07	ECST1AX336	E.CAPACITOR 6.3V 120U	2	
C508-11	ECST1CC336Z	T.CAPACITOR CH 16V 33U	4	
C512,13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C514	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C515-21	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C522	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	1	
C523	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C525,26	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C527	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C528	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C529	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C530,31	ECST1CC336Z	T.CAPACITOR CH 16V 33U	2	
C532	ECST1AX336	E.CAPACITOR 6.3V 120U	1	
C533-37	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C538	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C539	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C540,41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C542	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C543,44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C545	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C546	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C547	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C548-51	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C553-57	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C558,59	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C560	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C708	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C710	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
FG1	VJR1094	TERMINAL	1	
FL100-02	VLF1508	FILTER	3	
IC100	LM4040CIX2.5	IC	1	
IC101-06	CLC505AJE	IC	6	C0ABAB000024
IC107-09	TC4W53FU	IC	3	
IC110-15	AD9203ARURL7	IC	6	
IC116-18	NJM072BV	IC	3	
IC302	TC7W08FU	IC	1	
IC304,05	51957BFP	IC	2	
IC306	MB87J1220	IC	1	
IC307	C0FBBF000029	IC	1	
IC308	CXD2304R	IC	1	
IC309	TVSA0161	IC	1	C0JBAA000099
IC311	CXD2304R	IC	1	
IC312	C0ZBZ0000104	IC	1	
IC321	TLCX541FT	IC	1	
IC324	LVX3245QSC	IC	1	
IC325	TC7SZ00F	IC	1	
IC326	TC7SZ08F	IC	1	
IC500	AK9813AF	IC	1	
IC501	TC7S86FU	IC	1	
IC502	LM4040CIX2.5	IC	1	
IC503,04	TC7SH00FU	IC	2	
IC505	TC7SZ08F	IC	1	
IC506,07	MB90098A-107	IC	2	
IC509	TC7SZ08F	IC	1	
IC512,13	NJM072BV	IC	2	
IC514	TLCX74FT	IC	1	
IC515	C0JBAZ000602	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC518	TC7SZ00F	IC	1	
IC519	TC7S02FU	IC	1	
IC520	TC7SH08FU	IC	1	
IC521	TLCX541FT	IC	1	
IC522-24	TC7SZ08F	IC	3	
IC701	TLCX541FT	IC	1	
L300	VLQ0319M3R3	COIL 3.3UH	1	
L301-03	VLP0353	COIL	3	
L304	VLQ0779M2R2	COIL 2.2UH	1	
L305	VLF1147A241	FILTER	1	
L306-08	VLP0353	COIL	3	
L310	VLF1147A241	FILTER	1	
L312,13	VLF1147A241	FILTER	2	
L314,15	VLP0353	COIL	2	
L316-22	VLF1147A241	FILTER	7	
L323	VLP0155	COIL	1	
L500-02	VLP0321A300	FERRITE CORE	3	
L503-08	VLP0155	COIL	6	
P100	VJP4395D008	CONNECTOR (MALE)	1	
P101	VJS4064N160E	CONNECTOR (FEMALE)	1	K1KAG0A00006
P300	VJP4395D008	CONNECTOR (MALE)	1	
P301	VJP4395D015	CONNECTOR (MALE)	1	
P500	VJP4064N160B	CONNECTOR (MALE)	1	
P700	VJP3125B008	CONNECTOR (MALE)	1	
Q1-Q3	2SC4176	TRANSISTOR	3	B1ABDB000014
Q7-Q9	2SC4176	TRANSISTOR	3	B1ABDB000014
Q500	2SC4176	TRANSISTOR	1	B1ABDB000014
Q501	2SB1073	TRANSISTOR	1	
Q502	2SD1119	TRANSISTOR	1	
Q503	2SB1073	TRANSISTOR	1	
Q504	2SC4176	TRANSISTOR	1	B1ABDB000014
Q505	2SA1610-B	TRANSISTOR	1	
Q506	2SC4176	TRANSISTOR	1	B1ABDB000014
R103-12	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	10	
R113	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R114,15	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R116	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R117	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	1	
R118-20	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R121-26	ERJ3RBD221	M.RESISTOR CH 1/16W 220	6	
R127	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R133	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R135	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R136-38	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	3	
R139	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R140	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R141	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R142	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R143	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R144	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R145	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R146,47	ERJ3RBD911	M.RESISTOR CH 1/16W 910	2	
R148-50	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R151-53	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	3	
R157	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R158	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R159	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R160	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R161	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R162	ERJ3RBD362	M.RESISTOR CH 1/16W 3.6K	1	
R163-65	ERJ3RED510	M.RESISTOR CH 1/16W 51	3	
R166-68	ERJ3RBD432	M.RESISTOR CH 1/16W 4.3K	3	
R169-71	ERJ3RBD101	M.RESISTOR CH 1/16W 100	3	
R172,73	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R174-79	ERJ3RED200	M.RESISTOR CH 1/16W 20	6	
R180-82	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R185-94	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	10	ERJ3GEY0R00V
R198,99	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R301,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R304	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R307	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R308	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R309	ERJ3GEYJ113	M.RESISTOR CH 1/16W 11K	1	
R310	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R311	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R312	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R313,14	EXB24V473J	COMBI.R-R 47K	2	
R315	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R316,17	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R318,19	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R320	EXB24V473J	COMBI.R-R 47K	1	
R321	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R322	EXB24V473J	COMBI.R-R 47K	1	
R323	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R325	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R326	EXB24V473J	COMBI.R-R 47K	1	
R327	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R328	ERJ3GEYJ163	M.RESISTOR CH 1/16W 16K	1	
R329	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R330,31	ERJ3GEYJ511	M.RESISTOR CH 1/16W 510	2	
R334	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R335	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R336	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R337,38	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R339	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R341	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R342-44	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	3	
R345	ERJ3GEYJ163	M.RESISTOR CH 1/16W 16K	1	
R347,48	ERJ3GEYJ511	M.RESISTOR CH 1/16W 510	2	
R349	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R351	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R352-54	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R355,56	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R358-60	ERJ3GEYJ752	M.RESISTOR CH 1/16W 7.5K	3	
R365	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R366	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R369	EXB24V100J	COMBI.R-R 10	1	
R372	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R374,75	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R378-80	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R383	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R384	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R385	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R390-92	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	3	
R394	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R500	EXB24V473J	COMBI.R-R 47K	1	
R501	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R502	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R503,04	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R505	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R507	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R509	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R510	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R511	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R513	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R514	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R515	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R516	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R517	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R518	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R519,20	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R521	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R522	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R523	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R524	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R525	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R526,27	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R528	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R529,30	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R531	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R532	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R533	ERJ3RBD471	M.RESISTOR CH 1/16W 470	1	
R534	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R535,36	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R537	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R538	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R539	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R540	ERJ3RBD243	M.RESISTOR CH 1/16W 24K	1	
R541	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R542-44	ERJ3RBD331	M.RESISTOR CH 1/16W 330	3	
R545	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R546	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R548	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R549	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R550	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R551,52	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R558-60	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R561,62	VLF1147A680	FILTER	2	
R563-69	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	7	ERJ3GEY0R00V
R570,71	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R572	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R574,75	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R577,78	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R579,80	EXB24V473J	COMBI.R-R 47K	2	
R581-93	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	13	
R594,95	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R711-13	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	3	
R717,18	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
TG100	EYF6CU	TEST POINT	1	
TG324	EYF6CU	TEST POINT	1	
TP104-06	EYF6CU	TEST POINT	3	
TP300,01	EYF6CU	TEST POINT	2	
TP305-07	EYF6CU	TEST POINT	3	
X500	H1C7415B0001	CRYSTAL OSCILLATOR	1	
■ E7-2	VEP23531A	MEMORY P.C.BOARD	1	(RTL)
C1-C6	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C7-C9	ECST1CX156Z	T.CAPACITOR CH 16V 15U	3	
C10,11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C12	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C13-18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C19	ECST1AY106Z	T.CAPACITOR CH 10V 10U	1	
C20-23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C24,25	ECST1AY106Z	T.CAPACITOR CH 10V 10U	2	
C26	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
IC1-C6	SN74CBT3383	IC	6	
IC7	EPM7256AE141	IC	1	
IC8,C9	C3ABPJ000009	IC	2	
ID7	VVVSI3639	SOFTWARE	1	
L1,L2	VLP0147	COIL	2	
L4	VLP0147	COIL	1	
P1	VJP4064N160B	CONNECTOR (MALE)	1	
R1-R6	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	6	ERJ3GEY0R00V
R7	VLF1147A680	FILTER	1	
R8-15	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	ERJ3GEY0R00V
R16-19	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	4	
R20	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
TG1	EYF6CU	TEST POINT	1	
■ E8	VEP23500B	VIDEO OUT P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C91,92	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C94	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C95,96	ECST1CX156Z	T.CAPACITOR CH 16V 15U	2	
C98,99	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C101	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C102,03	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C105	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C106	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C107	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C108-14	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C116	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C117,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C120	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C121,22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C124	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C125,26	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C128	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C129,30	ECST1CX156Z	T.CAPACITOR CH 16V 15U	2	
C135,36	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C140-44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C145	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C148	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C508,09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C510	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C511	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C512	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C513-15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C517,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C519	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C520	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C521,22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C523	ECHU1C104J	P.CAPACITOR 16V 0.1U	1	
C524,25	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C526	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C527,28	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C529	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C530,31	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	2	
C533	ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C535-38	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C539	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C540	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C541	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C542	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C543	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C544,45	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C547	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C549	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C551	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C555-57	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C559	ECST1CY475Z	T.CAPACITOR CH 16V 4.7U	1	
C561-63	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C564	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C701	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C702	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C703-05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C706,07	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C708,09	ECST1CV476	E.CAPACITOR CH 16V 47M	2	
C710,11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C716	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C717	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C718	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C719	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C720	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C721	ECST1CX156Z	T.CAPACITOR CH 16V 15U	1	
C722-24	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	3	
C725	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
D501-04	MA147	DIODE	4	
FL7	VLF1515	FILTER	1	
FL9	VLF1515	FILTER	1	
IC13	THC4053FT	IC	1	
IC23-25	CLC505AJE	IC	3	C0ABAB000024
IC26	THC4053FT	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC27-30	CLC505AJE	IC	4	C0ABAB000024
IC34	LVX3245QSC	IC	1	
IC37	TC4W53FU	IC	1	
IC38	CLC505AJE	IC	1	C0ABAB000024
IC39	AD8014AR	IC	1	
IC501	CLC505AJE	IC	1	C0ABAB000024
IC502	GS4981-C	IC	1	
IC503	TC7W74FU	IC	1	
IC505	TC7S32FU	IC	1	
IC506	TVHC221FT	IC	1	
IC507	TC4W53FU	IC	1	
IC508	NJM062V	IC	1	
IC509	NJM360M	IC	1	
IC510	TVHC221FT	IC	1	
IC512	NJM062V	IC	1	
IC513	TVHC221FT	IC	1	
IC514	74HC4046MTCX	IC	1	
IC515	NJU7064V	IC	1	
IC516	TC7W00FU	IC	1	
IC517,18	TC7W126F	IC	2	
IC701	LM4040CIX2.5	IC	1	
IC702	NJM072BV	IC	1	
IC704	TVHC595FT	IC	1	
IC705	TC7S32FU	IC	1	
L500,01	VLP0155	COIL	2	
L504	VLP0155	COIL	1	
L506-08	VLP0155	COIL	3	
P1	VJP4064Q160	CONNECTOR (MALE)	1	K1KBG0B00002
Q501	2SA1610-B	TRANSISTOR	1	
Q701	2SB1073	TRANSISTOR	1	
Q702	2SD1119	TRANSISTOR	1	
Q703	2SC4176	TRANSISTOR	1	B1ABDB000014
Q704	2SA1610-B	TRANSISTOR	1	
Q708	2SD1280-R	TRANSISTOR	1	
Q709	2SB1218A	TRANSISTOR	1	
Q710	2SB956-R	TRANSISTOR	1	
QR1	UN5213	TRANSISTOR-RESISTOR	1	
QR702	UN5213	TRANSISTOR-RESISTOR	1	
R102	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R103,04	ERJ3RBD751	M.RESISTOR CH 1/16W 750	2	
R105,06	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R107	ERJ3RED394	M.RESISTOR CH 1/16W 390K	1	
R108	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R111	ERJ3RBD162	M.RESISTOR CH 1/16W 1.6K	1	
R112	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R113	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R115	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R116	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R117	ERJ3RED394	M.RESISTOR CH 1/16W 390K	1	
R118,19	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R120	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R121	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R122	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R125	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R126	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R127	ERJ3RBD512	M.RESISTOR CH 1/16W 5.2K	1	
R128	ERJ3RBD431	M.RESISTOR CH 1/16W 430	1	
R130	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R131	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R132	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R133	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R134	ERJ3RED680	M.RESISTOR CH 1/16W 68	1	
R135	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R136-38	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	3	
R139	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R140	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R141	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R142,43	ERJ3RBD511	M.RESISTOR CH 1/16W 510	2	
R144	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R145	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R146	ERJ3RED394	M.RESISTOR CH 1/16W 390K	1	
R147	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R148,49	ERJ3RBD911	M.RESISTOR CH 1/16W 910	2	
R150,51	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R152	ERJ3RED394	M.RESISTOR CH 1/16W 390K	1	
R153	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R155	ERJ3RBD162	M.RESISTOR CH 1/16W 1.6K	1	
R156	ERJ3RBD331	M.RESISTOR CH 1/16W 330	1	
R160,61	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R165	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R166	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R167	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R168	ERJ3RED394	M.RESISTOR CH 1/16W 390K	1	
R169,70	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	2	
R185	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R186	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R501	ERJ3RED750	M.RESISTOR CH 1/16W 75	1	
R505,06	ERJ3RBD511	M.RESISTOR CH 1/16W 510	2	
R507	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R508	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R509	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R510	ERJ3GEYJ824	M.RESISTOR CH 1/16W 820K	1	
R512	ERJ3RED224	M.RESISTOR CH 1/16W 220K	1	
R518	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R519	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R521	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R522	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R523	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R524	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R525	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R526	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R527,28	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R529	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R530	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	1	
R531	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R532	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R533	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R534	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R535	ERJ3RED334	M.RESISTOR CH 1/16W 330K	1	
R536,37	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R538	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R539	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R540	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R541	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R542	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R545	ERJ3RED220	M.RESISTOR CH 1/16W 22	1	
R547	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R548,49	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	2	
R551	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R553	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R554,55	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R556	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R557	ERJ3RED105	M.RESISTOR CH 1/16W 1M	1	
R558	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R560	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R562	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R701	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R702	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R703	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R704	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R705	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R706	ERJ3RED100	M.RESISTOR CH 1/16W 10	1	
R707	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R708,09	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R710	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R711,12	ERJ3RBD331	M.RESISTOR CH 1/16W 330	2	
R720	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R721,22	ERJ3RED100	M.RESISTOR CH 1/16W 10	2	
R723	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R724,25	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	2	
R726,27	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	2	
R728	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R734	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R735-38	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R741,42	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
TG701	EYF6CU	TEST POINT	1	
TP12-17	EYF6CU	TEST POINT	6	
TP501-05	EYF6CU	TEST POINT	5	
VR8	VRV0303B201	V.RESISTOR 200	1	
		MISCELLANEOUS		
	XSB2+6FX	SCREW	3	
	XNG2E	NUT	1	
	VGQ4618	NUMBER PLATE (3)	1	
■ E9	VEP80B10A	VTR MOTHER P.C.BOARD	1	(RTL)
C9808,09	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	2	
C9916-18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
D9801	MA142WK	DIODE	1	
D9901,02	MA142K	DIODE	2	
D9903,04	MA738	DIODE	2	
IC9903	TC7W04FU	IC	1	
P9801	VJS4064N160E	CONNECTOR (FEMALE)	1	K1KAG0A00006
P9803	VJS3801B040	CONNECTOR (FEMALE)	1	
P9805	VJS3801B040	CONNECTOR (FEMALE)	1	
P9806	VJP4395D010	CONNECTOR (MALE)	1	
P9807	VJP4395D008	CONNECTOR (MALE)	1	
P9808	VJS3806E070	CONNECTOR (FEMALE)	1	K1KB70A00004
P9809	VJP3358C022	CONNECTOR (MALE)	1	K1KA22A00027
P9810	VJP3125B008	CONNECTOR (MALE)	1	
P9811	VJS3791B020	CONNECTOR (FEMALE)	1	
P9812	VJS3801B050	CONNECTOR (FEMALE)	1	
P9813	VJP4395D002	CONNECTOR (MALE)	1	
P9814	VJS2907D020	CONNECTOR (FEMALE)	1	
P9815	VJP3952B070	CONNECTOR (MALE)	1	
P9816	VJP4395D007	CONNECTOR (MALE)	1	
P9817	VJP4395D003	CONNECTOR (MALE)	1	
P9818	VJP3518D005	CONNECTOR (MALE)	1	
P9819	VJS2907D015	CONNECTOR (FEMALE)	1	K1MN15B00011
P9820	VJP4329A034	CONNECTOR (MALE)	1	
P9822	VJP4395D012	CONNECTOR (MALE)	1	
P9823	VJP4395D015	CONNECTOR (MALE)	1	
P9824	VJS2907B008	CONNECTOR (FEMALE)	1	
P9825	VJP4395D004	CONNECTOR (MALE)	1	
P9901	VJP4395D003	CONNECTOR (MALE)	1	
Q9801	2SD1820A-R	TRANSISTOR	1	
Q9905,06	2SB1073-R	TRANSISTOR	2	
QR9801	UN5114	TRANSISTOR-RESISTOR	1	
QR9802	UN5214	TRANSISTOR-RESISTOR	1	
QR9901-04	UN5211	TRANSISTOR-RESISTOR	4	
R9801-09	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	9	ERJ3GEY0R00V
R9810,11	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	ERJ6GEY0R00V
R9812,13	VLF1315A102	FILTER	2	J0JHC0000015
R9814	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R9815	ERJ3GEYJ270	M.RESISTOR CH 1/16W 27	1	
R9816	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R9817	ERJ3GEYJ270	M.RESISTOR CH 1/16W 27	1	
R9819	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R9821	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R9913,14	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R9915	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R9917	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R9918	ERJ6GEYG271	M.RESISTOR CH 1/10W 270	1	
R9919	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R9921	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R9922	ERJ6GEYG271	M.RESISTOR CH 1/10W 270	1	
R9923,24	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R9925	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R9927	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R9929	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R9936	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
TG9801,02	EYF6CU	TEST POINT	2	
TP9801-15	EYF6CU	TEST POINT	15	
		MISCELLANEOUS		
	VMP6381	P.C.BOARD HOLDER ANGLE	1	
	XYN26+F6FX	SCREW	1	
	VMX3059	SPACER	1	
■ E10	VEP86303B	VTR SYSCON P.C.BOARD	1	(RTL)
C6100,01	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	2	ECUV1H150JCV
C6102	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6103	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C6104	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6105	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C6106	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6107-09	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C6110-16	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C6117	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6118	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6119	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6120	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6121-30	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	10	ECUV1H103KBV
C6131	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C6133	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6134	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C6135,36	ECUX1H122KBV	C.CAPACITOR CH 50V 1200P	2	
C6200-03	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C6300-08	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	9	
C6400	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6401-04	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C6405	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C6500-03	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C6504-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C6600,01	VCK0152	C.CAPACITOR	2	F1L1C1060016
C6602	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C6603	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6604	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C6605	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C6606	ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C6607	ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C6608	ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C6609	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6610,11	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C6612	VCK0152	C.CAPACITOR	1	F1L1C1060016
C6701	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6704	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6707-12	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C6713-15	F1L0J2260002	C.CAPACITOR CH6.3V 22U	3	
C6716	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C6800,01	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
D6100,01	MA3J14300L	DIODE	2	
D6103-05	MA3J14300L	DIODE	3	
D6106,07	MA151K	DIODE	2	
D6600,01	MA157	DIODE	2	
IC6101	C0EBE0000075	IC	1	
IC6102	NJM2904M	IC	1	
IC6104	TC7W125FU	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC6105	C0EBJ0000049	IC	1	
IC6106	TC7SH04FU	IC	1	
IC6301,02	TLCX245FT	IC	2	
IC6303	TLCX32FT	IC	1	
IC6304	TLCX08F	IC	1	
IC6305	TLCX74FT	IC	1	
IC6306	TLCX00FT	IC	1	
IC6307,08	TLCX74FT	IC	2	
IC6309	TLCX32FT	IC	1	
IC6400	C1AB00000936	IC	1	
IC6401	AK6440AF	IC	1	
IC6500	C1AB00000936	IC	1	
IC6600	TVSA0021	IC	1	C0ABBA000042
IC6601	UPC393G2	IC	1	
IC6602	NJM2068MD	IC	1	
IC6800,01	LTC1480CS8	IC	2	C0ZBZ0000299
ID6100	VVVSI3532	SOFTWARE	1	
IP6100	M32160F4UFP	IC	1	
L6701-04	VLP0147	COIL	4	
P6100	VJS3791B020	CONNECTOR (FEMALE)	1	
P6700	VJS3806E120	CONNECTOR (FEMALE)	1	K1KBC0A00019
P6701	VJP4395D004	CONNECTOR (MALE)	1	
P6800,01	VJS3801B040	CONNECTOR (FEMALE)	2	
QR6500	UN5213	TRANSISTOR-RESISTOR	1	
QR6501	UN5215	TRANSISTOR-RESISTOR	1	
QR6502-05	UN5115	TRANSISTOR-RESISTOR	4	
R6100	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6101,02	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R6103	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R6104	EXB24V473J	COMBI.R-R 47K	1	
R6105	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6106	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6108	ERJ6RBD473	M.RESISTOR CH 1/10W 47K	1	
R6109	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6110	ERJ6RBD473	M.RESISTOR CH 1/10W 47K	1	
R6111	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6112	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6113	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	1	
R6114,15	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6116	ERJ6RBD273	M.RESISTOR CH 1/10W 27K	1	
R6117-20	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R6122-26	EXB24V103J	COMBI.R-R 10K	5	
R6129	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6131,32	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6134,35	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6136,37	EXB24V103J	COMBI.R-R 10K	2	
R6140,41	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R6142	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R6143	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6144,45	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R6146,47	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R6148	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6149	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6150	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R6151	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6152	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6153-59	EXB24V103J	COMBI.R-R 10K	7	
R6160	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6162-67	EXB24V103J	COMBI.R-R 10K	6	
R6169	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6170,71	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R6173	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6300	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6302-18	EXB24V473J	COMBI.R-R 47K	17	
R6319	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6321-23	EXB24V473J	COMBI.R-R 47K	3	
R6330	EXB24V473J	COMBI.R-R 47K	1	
R6400	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6401,02	EXB24V473J	COMBI.R-R 47K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6403	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6405	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6407	EXB24V473J	COMBI.R-R 47K	1	
R6408	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6409	EXB24V103J	COMBI.R-R 10K	1	
R6410	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6411	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R6412	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6413	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6414,15	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6416	EXB24V473J	COMBI.R-R 47K	1	
R6417	EXB24V103J	COMBI.R-R 10K	1	
R6418	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6500,01	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6502,03	EXB24V473J	COMBI.R-R 47K	2	
R6504	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6505	EXB24V473J	COMBI.R-R 47K	1	
R6506	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6507	EXB24V473J	COMBI.R-R 47K	1	
R6508	EXB24V103J	COMBI.R-R 10K	1	
R6509	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6510	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6511	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6512-16	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	5	
R6517	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6518-24	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	7	
R6525-31	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	7	
R6532-35	ERJ6GEYG121	M.RESISTOR CH 1/10W 120	4	
R6537	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6600	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R6601	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6602	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6603	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R6604	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R6605	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6606	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6607,08	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R6609	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6610	ERJ3GEYJ824	M.RESISTOR CH 1/16W 820K	1	
R6611	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R6612,13	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R6614	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6615,16	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R6617	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R6618	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R6619	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R6620	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R6621	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6622	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R6623	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R6624	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R6625	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R6626	ERJ3RED470	M.RESISTOR CH 1/16W 47	1	
R6627	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6701,02	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R6705	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6800	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6802,03	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6805	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R6806,07	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6808-11	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R6812	ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	1	
RA6500-06	EXB24V473J	COMBI.R-R 47K	7	
SW6500,01	VSS0367-04B	SWITCH	2	
TG6701	EYF6CU	TEST POINT	1	
TP6100	EYF6CU	TEST POINT	1	
TP6700-03	EYF6CU	TEST POINT	4	
TP6800,01	EYF6CU	TEST POINT	2	
X6100	VSX0641	CRYSTAL OSCILLATOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
■ E11	VEP80B38A	SERVO FLEX P.C.BOARD	1	(RTL)
P1	VJS3806E070	CONNECTOR (FEMALE)	1	K1KB70A00004
P2	VJP3808E070	CONNECTOR (MALE)	1	K1KA70A00007
■ E12	VEP82224A	SERVO P.C.BOARD	1	(RTL)
C100	ECUM1C334KBN	C.CAPACITOR CH 16V 0.33U	1	
C101	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C102,03	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	2	ECUV1H150JCV
C104	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C105	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C106,07	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	
C108	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C110	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C111	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C112	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C113	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C114	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C117,18	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	2	
C124	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C200-05	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	6	
C206-08	VCE0180	E.CAPACITOR	3	F2G1E1010003
C210	VCE0180	E.CAPACITOR	1	F2G1E1010003
C211	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C213	VCE0180	E.CAPACITOR	1	F2G1E1010003
C214	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C215,16	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	
C217,18	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C219	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C220	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C221,22	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C223	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C224,25	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	
C226,27	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C228	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C229-31	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C232	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C233-38	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	6	ECUV1E104KBN
C242	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	1	
C243	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C244,45	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	2	
C246,47	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C248	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C249	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C250	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C251	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C252	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C253	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C254-56	F1L0J2260002	C.CAPACITOR CH6.3V 22U	3	
C257,58	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	2	
C259,60	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C300-02	VCE0180	E.CAPACITOR	3	F2G1E1010003
C304	VCE0180	E.CAPACITOR	1	F2G1E1010003
C305	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C307	VCE0180	E.CAPACITOR	1	F2G1E1010003
C308	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C309	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C310	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C311	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C312	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C313	VCC0037F432	C.CAPACITOR 432P	1	
C314	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C315	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C316,17	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C318,19	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C320	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C321-23	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C324	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C325	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C326	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C327-29	F1K1C475A043	C.CAPACITOR CH 16V 4.7U	3	
C330-32	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	3	ECUV1E104KBN
C333	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C334,35	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	
C336,37	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C338	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C339	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C340,41	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C342	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C343	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C344	ECUM1C474KBN	C.CAPACITOR CH 16V 0.47U	1	
C345-47	F1K1C475A043	C.CAPACITOR CH 16V 4.7U	3	
C348-50	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	3	ECUV1E104KBN
C351	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C354-59	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	6	
C360-62	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C401-04	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	4	
C407-10	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	4	
C411-13	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C414,15	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C416	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C417,18	F1L1C1060020	C.CAPACITOR CH 16V 10U	2	
C419	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C420	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	1	
C422-25	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	4	
C432	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C433	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C434	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	1	
C435	F1L1C1060020	C.CAPACITOR CH 16V 10U	1	
C436	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	1	
C437	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C439	ECA1HXLV100	E.CAPACITOR 50V 10U	1	
C500-03	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C504-06	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C701	F1L1E4750006	C.CAPACITOR CH 25V 4.7U	1	
C702	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C703	F1L1E4750006	C.CAPACITOR CH 25V 4.7U	1	
C704	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C705	F1L1E4750006	C.CAPACITOR CH 25V 4.7U	1	
C706,07	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	2	ECUV1E104KBN
C708	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C801	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C804-06	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	3	ECUV1E104KBN
C807,08	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C809	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C811	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C812,13	ECA12HG472L	E.CAPACITOR 4700U	2	
C820	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C825	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C842	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C900	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C901	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C903-08	F1K0J1060002	C.CAPACITOR CH6.3V 10U	6	
C909,10	F1L1C1060020	C.CAPACITOR CH 16V 10U	2	
C949	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C950,51	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C952-55	F1L0J2260002	C.CAPACITOR CH6.3V 22U	4	
C956,57	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C958	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C959,60	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C961,62	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	2	
C963	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C964	ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C967,68	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C969	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	ECUV1H222KBV
C970	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	F1H1H102A009
C972	F1J0J3350002	C.CAPACITOR CH6.3V 3.3U	1	
C979-82	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	4	ECUV1H103KBV
C983	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C984	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C985	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C986-90	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	5	ECUV1H103KBV
D200,01	MA736	DIODE	2	
D202,03	MA3J14300L	DIODE	2	
D300,01	MA736	DIODE	2	
D302-05	MA142WK	DIODE	4	
D306-17	MA738	DIODE	12	
D401	MA736	DIODE	1	
D402-05	MA3J14300L	DIODE	4	
D406	MA736	DIODE	1	
D701	MA3J14300L	DIODE	1	
D702	MA3056-L	DIODE	1	
D703	MA738	DIODE	1	
D704	MA3051-M	DIODE	1	
D705	MA142WK	DIODE	1	
D706-08	MA142WA	DIODE	3	
D800	MA8051-H	DIODE	1	
D801-09	MA142WK	DIODE	9	
D811,12	MA142WK	DIODE	2	
D813	NSQ03A04	DIODE	1	B0JCPE000013
D817-28	MA738	DIODE	12	
D829	NSQ03A04	DIODE	1	B0JCPE000013
D830	MA8051-H	DIODE	1	
D831,32	NSQ03A04	DIODE	2	B0JCPE000013
D834	MA8030-H	DIODE	1	
D836	MA738	DIODE	1	
D950,51	MA147	DIODE	2	
D954,55	MA142K	DIODE	2	
D956	MA147	DIODE	1	
D958	MA147	DIODE	1	
IC101	TC7W126F	IC	1	
IC102	S80829ANUP	IC	1	
IC103,04	TC7SHU04FU	IC	2	
IC105	XC62FP3302P	IC	1	
IC106	TC75W54FU	IC	1	
IC201	TA75W393FU	IC	1	
IC202,03	TB6519F	IC	2	C0GBY0000011
IC204,05	MDC05	IC	2	
IC206	TC75W54FU	IC	1	
IC207	TA75W393FU	IC	1	
IC208	TC75W54FU	IC	1	
IC209	TA75W393FU	IC	1	
IC212	TC7W126F	IC	1	
IC213	TVS1129	IC	1	C0JBAZ000525
IC301	TL1451CDB	IC	1	
IC302	TA75W393FU	IC	1	
IC303,04	TB6519F	IC	2	C0GBY0000011
IC305	TC7W126F	IC	1	
IC401,02	TA75W393FU	IC	2	
IC403	TC75W54FU	IC	1	
IC406,07	UPC4558G2	IC	2	C0ABBB000131
IC408-10	TC75W54FU	IC	3	
IC501	TVHC14FT	IC	1	
IC502,03	TVS1129	IC	2	C0JBAZ000525
IC701	TA75W393FU	IC	1	
IC702	BA6219BFP-Y	IC	1	
IC703	TA75W393FU	IC	1	
IC704	TC7SH08FU	IC	1	
IC801	TVHC123FT	IC	1	
IC802	NJM2904M	IC	1	
IC803	MC14538BF	IC	1	C0JBAM000009
IC805	TC7W04FU	IC	1	
IC807	NJM2904M	IC	1	
IC900	TVHT244FT	IC	1	
IC902	HAT1033T	TRANSISTOR	1	
IC903	HAT2042T	TRANSISTOR	1	
IC904,05	HAT1033T	TRANSISTOR	2	
IC950	TVHC14FT	IC	1	
IC951,52	NJM062V	IC	2	
IC953,54	0P177GS	IC	2	
IC955	NJM062V	IC	1	
IC956	TC4W53FU	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
ID100	VVVSI3401D	SOFTWARE	1	
IP100	MN1030F04K	IC	1	
IP500	VVVSI3326	IC	1	
IP500	X9144L7T100	IC	1	
J1-J4	VJR1094	TERMINAL	4	
L201,02	VLQ0650M151	COIL 150UH	2	G1C151MA0016
L301,02	VLQ0650M151	COIL 150UH	2	G1C151MA0016
L701	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	1	
P500	VJP3125B008	CONNECTOR (MALE)	1	
P600	VJP3172D003	CONNECTOR (MALE)	1	K1KA03B00006
P601	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P602	VJP3172D004	CONNECTOR (MALE)	1	K1KA04B00007
P603	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P604	VJP3172D003	CONNECTOR (MALE)	1	K1KA03B00006
P605	VJP3518B002	CONNECTOR (MALE)	1	
P606	VJP3172D003	CONNECTOR (MALE)	1	K1KA03B00006
P607	VJS3801B010	CONNECTOR (FEMALE)	1	
P608	VJP3518B002	CONNECTOR (MALE)	1	
P609	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P610	VJP3518B003	CONNECTOR (MALE)	1	
P611	VJP3518B002	CONNECTOR (MALE)	1	
P612	VJP3172D004	CONNECTOR (MALE)	1	K1KA04B00007
P613	VJS3406B015	CONNECTOR (FEMALE)	1	
P614,15	VJS3813C017	CONNECTOR (FEMALE)	2	K1MN17B00012
P616	VJS3406B019	CONNECTOR (FEMALE)	1	
P617	VJP1232T	CONNECTOR (MALE) 5P	1	
P618	VJP3125B002	CONNECTOR (MALE)	1	K1KA02B00111
P619	VJP3808E070	CONNECTOR (MALE)	1	K1KA70A00007
P620	VJS3791B020	CONNECTOR (FEMALE)	1	
Q200	2SD1820A-R	TRANSISTOR	1	
Q201	2SB1219A-R	TRANSISTOR	1	
Q202	2SD1820A-R	TRANSISTOR	1	
Q203	2SB1219A-R	TRANSISTOR	1	
Q204-07	2SD1819A-R	TRANSISTOR	4	
Q208	HAT1024R	TRANSISTOR	1	
Q300	2SD1820A-R	TRANSISTOR	1	
Q301	2SB1219A-R	TRANSISTOR	1	
Q302	2SD1820A-R	TRANSISTOR	1	
Q303	2SB1219A-R	TRANSISTOR	1	
Q304	2SB710A-R	TRANSISTOR	1	
Q305	2SB1073-R	TRANSISTOR	1	
Q306	2SD1119-R	TRANSISTOR	1	
Q307	2SB1073-R	TRANSISTOR	1	
Q308	2SD1119-R	TRANSISTOR	1	
Q309	2SB1073-R	TRANSISTOR	1	
Q310	2SD1119-R	TRANSISTOR	1	
Q311	2SB710A-R	TRANSISTOR	1	
Q312	2SB1073-R	TRANSISTOR	1	
Q313	2SD1119-R	TRANSISTOR	1	
Q314	2SB1073-R	TRANSISTOR	1	
Q315	2SD1119-R	TRANSISTOR	1	
Q316	2SB1073-R	TRANSISTOR	1	
Q317	2SD1119-R	TRANSISTOR	1	
Q318	HAT1024R	TRANSISTOR	1	
Q401	2SB1219A-R	TRANSISTOR	1	
Q700,01	2SD1819A-R	TRANSISTOR	2	
Q702	2SB1073-R	TRANSISTOR	1	
Q703	2SD1624-S	TRANSISTOR	1	
Q811	2SB936A-Q	TRANSISTOR	1	
Q812	2SD1819A-R	TRANSISTOR	1	
Q815	2SD1819A-R	TRANSISTOR	1	
Q816,17	2SB1073-R	TRANSISTOR	2	
Q818	2SB936A-Q	TRANSISTOR	1	
Q819	2SD1819A-R	TRANSISTOR	1	
Q820	2SB1219A-R	TRANSISTOR	1	
Q821,22	2SD1624-S	TRANSISTOR	2	
Q823	2SB1219A-R	TRANSISTOR	1	
Q825	2SD1819A-R	TRANSISTOR	1	
Q826,27	2SB1073-R	TRANSISTOR	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q829	2SD1819A-R	TRANSISTOR	1	
Q830	2SB1219A-R	TRANSISTOR	1	
Q831,32	2SD1624-S	TRANSISTOR	2	
Q833	2SB1219A-R	TRANSISTOR	1	
Q835	2SD1819A-R	TRANSISTOR	1	
Q836,37	2SB1073-R	TRANSISTOR	2	
Q839	2SD1819A-R	TRANSISTOR	1	
Q840	2SB1219A-R	TRANSISTOR	1	
Q841,42	2SD1624-S	TRANSISTOR	2	
Q843	2SB1219A-R	TRANSISTOR	1	
Q848	2SD1819A-R	TRANSISTOR	1	
Q950	2SD601A	TRANSISTOR	1	
Q951	2SB709A	TRANSISTOR	1	
Q952	2SB709A-R	TRANSISTOR	1	
Q953	2SD601A-R	TRANSISTOR	1	
Q954	2SB709A	TRANSISTOR	1	
Q955	2SD601A	TRANSISTOR	1	
QR100-02	UN5213	TRANSISTOR-RESISTOR	3	
QR200,01	UN5213	TRANSISTOR-RESISTOR	2	
QR300,01	UN5111	TRANSISTOR-RESISTOR	2	
QR701,02	UN5114	TRANSISTOR-RESISTOR	2	
QR703-05	UN5214	TRANSISTOR-RESISTOR	3	
QR804	UN5213	TRANSISTOR-RESISTOR	1	
QR805-13	UN5214	TRANSISTOR-RESISTOR	9	
QR814	UN5114	TRANSISTOR-RESISTOR	1	
QR818	UN5114	TRANSISTOR-RESISTOR	1	
QR824	UN5114	TRANSISTOR-RESISTOR	1	
QR828	UN5114	TRANSISTOR-RESISTOR	1	
QR834	UN5114	TRANSISTOR-RESISTOR	1	
QR838	UN5114	TRANSISTOR-RESISTOR	1	
QR849	UN5213	TRANSISTOR-RESISTOR	1	
QR901	UN5213	TRANSISTOR-RESISTOR	1	
QR902	UN5113	TRANSISTOR-RESISTOR	1	
QR903,04	UN5213	TRANSISTOR-RESISTOR	2	
QR950	UN5213	TRANSISTOR-RESISTOR	1	
QR951	UN5113	TRANSISTOR-RESISTOR	1	
QR952	UN5215	TRANSISTOR-RESISTOR	1	
QR953	UN5115	TRANSISTOR-RESISTOR	1	
R1	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R2,R3	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R4	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R5	ERJ3RBD122	M.RESISTOR CH 1/16W 1.2K	1	
R6	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R7	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R10,11	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	2	
R12	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R100,01	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R102	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R103	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R105-07	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R108	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R109	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R110	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R112-20	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	9	
R121	ERJ3GEYJ120	M.RESISTOR CH 1/16W 12	1	
R122-25	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	4	
R126	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R127	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R130	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R131	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R133-35	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R136,37	ERJ6RBD473	M.RESISTOR CH 1/10W 47K	2	
R138	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R140-62	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	23	
R163	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R165	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R166	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R168-72	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	5	
R173,74	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R175,76	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R179	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R182	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	ERJ8GEY0R00V
R184,85	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R200,01	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	2	
R202,03	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R204,05	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R208	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R209	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R210	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R211	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R212	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R213	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R214	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R215	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R216	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R217	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R218	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R219	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R220	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R221	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R222	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R223	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R224	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R225	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R226,27	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R228	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R229	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R230,31	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R232-34	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	3	
R235	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R238	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R239	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R240,41	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R242-44	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	3	
R245	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R246,47	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R248	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R249	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R250	ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R251	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R252	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R253	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R254	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R255	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R256-58	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R259	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R260	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R261	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R262	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R263	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R264	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R265	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R266	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R267	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R268	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R269	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R270	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R271	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R272	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R273	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R274	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R275	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R276	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R277	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R278,79	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	2	
R280	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R281	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R282	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R283,84	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2	
R285,86	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R300	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R301	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R302	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R303	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R304	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R305	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R308,09	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	2	
R310,11	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R312	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R313	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R315	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R316	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R317	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R318	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R319	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R320	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R321	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R322	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R323	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R324	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R325	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R326	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R327	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R328	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R329	ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R330	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R331	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R332	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R333,34	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R336	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R337	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R338	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R339-41	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	3	
R342	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R343	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R344	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R345	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R346-48	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	3	
R349,50	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	2	
R351,52	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R354	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R355	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R356	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R357-59	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	3	
R360	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R361	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R362	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R363	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R364-66	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	3	
R367,68	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	2	
R369,70	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R371	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R372	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R373	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R374	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R375	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R376	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R380,81	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	2	
R382	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R401	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R402	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R406	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R407	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R408	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R411	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R412	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R416	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R417	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R418	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R421	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R422	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R426	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R427	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R428	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R431	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R432	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R436	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R437	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	1	
R438	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R441,42	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R443	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R444	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	ERJ3GEYJ273V
R445	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R448	ERJ6RBD222	M.RESISTOR CH 1/10W 2.2K	1	
R449	ERJ6RBD682	M.RESISTOR CH 1/10W 6.8K	1	
R451	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R452-54	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	3	ERJ8GEY0R00V
R461	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R468,69	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R470	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R471	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R472,73	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R474	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R475,76	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R477,78	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R479	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R500-02	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R503,04	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R505	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R506-08	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	3	
R509	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R510-13	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R514	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R515	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R516-19	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R520	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R521-28	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	8	
R529	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R531-38	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	8	
R539	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R551-61	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	11	
R563	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R564-75	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	12	
R577	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R579-87	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	9	
R590	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R593	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R595	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R603-06	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	4	
R700-02	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R703	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R704	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R705	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R706	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R707	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R708	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R709	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R710	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R711	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R712,13	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R714	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R715	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R716,17	ERJ8GEYJ101	M.RESISTOR CH 1/8W 100	2	
R718	ERJ8GEYJ300	M.RESISTOR CH 1/8W 30	1	
R719	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R720	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R721	ERJ6GEYG151	M.RESISTOR CH 1/10W 150	1	
R722	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R723	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R724	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R725	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R726	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R727-30	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	4	ERJ3GEYJ273V
R731-34	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	4	
R735	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R736	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R737,38	ERJ8GEYJ102	M.RESISTOR CH 1/8W 1K	2	ERJ8GEYJ102V
R739	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R740	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R741	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R742	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R743	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R744,45	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R746	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R747	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	ERJ3GEYJ273V
R748	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R749	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R751	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R752	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R753	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R754	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R804	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R806	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R807-09	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R810	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R811	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R812-14	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	
R815-17	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	3	
R819,20	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R821	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R822	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R823-25	ERJ6GEYG681	M.RESISTOR CH 1/10W 680	3	
R826,27	ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	2	
R828	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R829	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R830	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R831,32	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R833	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R834,35	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R836	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R837	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R838	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R839	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R840,41	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R842	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R843,44	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R845	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R846	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R847,48	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	2	
R849	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R850	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R851,52	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R853	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R854,55	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R856	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R857	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R858	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R859	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R860,61	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R862	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R863,64	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R865	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R866	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R867,68	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	2	
R869	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R870	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R871,72	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R873	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R874,75	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	2	
R876	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R877	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R878	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R879	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R880	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	1	
R881	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R882-84	ERJ8GEYJ391	M.RESISTOR CH 1/8W 390	3	
R885	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R886	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R887	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R890-95	ERJ12YJ3R3	M.RESISTOR CH 1/2W 3.3	6	
R897,98	ERJ12YJ3R3	M.RESISTOR CH 1/2W 3.3	2	
R900	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R901	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R904	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R906	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R908	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R909	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R910	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R911	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R912	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R913	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R914	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R915	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R916	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R917	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R919	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R920-23	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	4	ERJ8GEY0R00V
R941	ERJ3GEYJ623	M.RESISTOR CH 1/16W 62K	1	
R942	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R943	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R944	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R945-47	ERJ6GEYG681	M.RESISTOR CH 1/10W 680	3	
R950-53	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	4	
R954,55	ERJ3RBD471	M.RESISTOR CH 1/16W 470	2	
R956	ERJ3GEYJ271	M.RESISTOR CH 1/16W 270	1	
R957	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R958,59	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R960	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R961,62	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R963	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R964	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R965	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R966	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R967	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R968	ERJ3RBD821	M.RESISTOR CH 1/16W 820	1	
R969,70	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	2	
R971,72	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R973,74	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	2	
R975	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R976	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R977,78	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R979	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R980	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R981	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R982	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R983	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R984	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R985	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R986	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R987	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R988	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R989,90	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R991,92	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	2	
R993	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R994	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R995	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R996	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R997-99	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
TG300	EYF6CU	TEST POINT	1	
TH200,01	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	2	
TH300,01	ERJ12Y0R00	M.RESISTOR CH 1/2W 0	2	
TP102,03	EYF6CU	TEST POINT	2	
TP113,14	EYF6CU	TEST POINT	2	
TP301,02	EYF6CU	TEST POINT	2	
TP402	EYF6CU	TEST POINT	1	
TP501-04	EYF6CU	TEST POINT	4	
TP601,02	EYF6CU	TEST POINT	2	
TP901	EYF6CU	TEST POINT	1	
TP950	EYF6CU	TEST POINT	1	
VR401	EVM7JGA00B54	V.RESISTOR 50K	1	
VR402	EVM7JGA00B24	V.RESISTOR 20K	1	EVM7JSX30B24
VR501,02	EVM7JGA00B24	V.RESISTOR 20K	2	EVM7JSX30B24
VR503,04	VRV0303B203A	V.RESISTOR 20K	2	D3EC3203A002
VR950	VRV0303B203A	V.RESISTOR 20K	1	D3EC3203A002
X100	VSX0918	CRYSTAL OSCILLATOR	1	H0J250500005
■ E13	VEP85179B	HEAD BUFF P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C100	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C101	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C102,03	ECUX1H080DCV	C.CAPACITOR CH 50V 8P	2	
C106	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C107	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C108,09	ECUX1H080DCV	C.CAPACITOR CH 50V 8P	2	
C112	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C113	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C114,15	ECUX1H080DCV	C.CAPACITOR CH 50V 8P	2	
C118	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C119	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C120,21	ECUX1H080DCV	C.CAPACITOR CH 50V 8P	2	
C124-31	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
C204,05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C206	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C207,08	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	F1H1H102A009
C209	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C210	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C212	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C213	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C214	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C219,20	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C221	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C222,23	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	F1H1H102A009
C224	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C225	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C227	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C228	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C229	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C304,05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C306	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C307,08	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	F1H1H102A009
C309	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C310	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C312	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C313	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C314	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C319,20	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C321	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C322,23	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	F1H1H102A009
C324	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C325	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C327	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C328	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C329	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C400-05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	6	
C406,07	ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	2	
C408	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C409-16	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
C417,18	ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	2	
C419	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C420-27	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
C428,29	ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	2	
C430	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C431-38	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	8	
C439,40	ECUX1H272KBV	C.CAPACITOR CH 50V 2700P	2	
C441	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C442,43	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C444-47	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	4	
C448-51	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	4	
C456-59	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	4	
C464-67	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	4	
C472-75	ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	4	
C476	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C500,01	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C504,05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
D100-07	MA132WK	DIODE	8	
D200-07	MA132WK	DIODE	8	
D300-07	MA132WK	DIODE	8	
IC400	UPC5102GS030	IC	1	C1ZBZ0001316
IC401	UPC1663G	IC	1	C1CB00000329
IC402	UPC5102GS030	IC	1	C1ZBZ0001316
IC403	UPC1663G	IC	1	C1CB00000329

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC404	UPC5102GS030	IC	1	C1ZBZ0001316
IC405	UPC1663G	IC	1	C1CB00000329
IC406	UPC5102GS030	IC	1	C1ZBZ0001316
IC407	UPC1663G	IC	1	C1CB00000329
IC500-03	T4069UBFT	IC	4	
IC504-07	TC7SH04FU	IC	4	
J1,J2	VJR1094	TERMINAL	2	
L100-07	VLQ0426J2R2	COIL 2.2UH	8	G1C2R2J00008
L200-03	VLQ0163J121	COIL 120UH	4	G1C121J00001
L300-03	VLQ0163J121	COIL 120UH	4	G1C121J00001
P1,P2	VJS3898D024	CONNECTOR (FEMALE)	2	K1MN24B00041
P3	VJS3801B050	CONNECTOR (FEMALE)	1	
P4	VJS3801B040	CONNECTOR (FEMALE)	1	
Q100,01	2SC3735B35	TRANSISTOR	2	
Q102,03	XN1504	TRANSISTOR-RESISTOR	2	
Q104,05	2SC3735B35	TRANSISTOR	2	
Q106,07	XN1504	TRANSISTOR-RESISTOR	2	
Q108,09	2SC3735B35	TRANSISTOR	2	
Q110,11	XN1504	TRANSISTOR-RESISTOR	2	
Q112,13	2SC3735B35	TRANSISTOR	2	
Q114,15	XN1504	TRANSISTOR-RESISTOR	2	
Q200-03	XN1504	TRANSISTOR-RESISTOR	4	
Q204	2SC2954	TRANSISTOR	1	
Q205,06	B1CBCB000002	TRANSISTOR	2	
Q207	2SC2954	TRANSISTOR	1	
Q208	2SA1532-B	TRANSISTOR	1	
Q209	2SC2954	TRANSISTOR	1	
Q210-13	XN1504	TRANSISTOR-RESISTOR	4	
Q214	2SC2954	TRANSISTOR	1	
Q215,16	B1CBCB000002	TRANSISTOR	2	
Q217	2SC2954	TRANSISTOR	1	
Q218	2SA1532-B	TRANSISTOR	1	
Q219	2SC2954	TRANSISTOR	1	
Q300-03	XN1504	TRANSISTOR-RESISTOR	4	
Q304	2SC2954	TRANSISTOR	1	
Q305,06	B1CBCB000002	TRANSISTOR	2	
Q307	2SC2954	TRANSISTOR	1	
Q308	2SA1532-B	TRANSISTOR	1	
Q309	2SC2954	TRANSISTOR	1	
Q310-13	XN1504	TRANSISTOR-RESISTOR	4	
Q314	2SC2954	TRANSISTOR	1	
Q315,16	B1CBCB000002	TRANSISTOR	2	
Q317	2SC2954	TRANSISTOR	1	
Q318	2SA1532-B	TRANSISTOR	1	
Q319	2SC2954	TRANSISTOR	1	
Q401-08	XN1504	TRANSISTOR-RESISTOR	8	
R1	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R100	ERJ6GEYJ5R6	M.RESISTOR CH 1/10W 5.6	1	ERJ6GEYJ5R6V
R101	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R102	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R103	ERJ6GEYG270	M.RESISTOR CH 1/10W 27	1	
R104	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R105	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R106-09	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R110,11	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R112	ERJ6GEYJ5R6	M.RESISTOR CH 1/10W 5.6	1	ERJ6GEYJ5R6V
R113	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R114	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R115	ERJ6GEYG270	M.RESISTOR CH 1/10W 27	1	
R116	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R117	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R118-21	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R122,23	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R124	ERJ6GEYJ5R6	M.RESISTOR CH 1/10W 5.6	1	ERJ6GEYJ5R6V
R125	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R126	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R127	ERJ6GEYG270	M.RESISTOR CH 1/10W 27	1	
R128	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R129	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R130-33	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R134,35	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R136	ERJ6GEYJ5R6	M.RESISTOR CH 1/10W 5.6	1	ERJ6GEYJ5R6V
R137	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R138	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R139	ERJ6GEYG270	M.RESISTOR CH 1/10W 27	1	
R140	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R141	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R142-45	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R146,47	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R200-03	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R204,05	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R206-09	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R210,11	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R212,13	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R214	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R215	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R216	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R217	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R218	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R219	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R220	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R221,22	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R223	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R224	ERJ12YJ270	M.RESISTOR CH 1/2W 270	1	
R225-28	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R229,30	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R231-34	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R235,36	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R237,38	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R239	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R240	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R241	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R242	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R243	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R244	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R245	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R246,47	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R248	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R249	ERJ12YJ270	M.RESISTOR CH 1/2W 270	1	
R250,51	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R252-54	EXB24V103J	COMBI.R-R 10K	3	
R300-03	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R304,05	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R306-09	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R310,11	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	2	
R312,13	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R314	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R315	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R316	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R317	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R318	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R319	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R320	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R321,22	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R323	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R324	ERJ12YJ270	M.RESISTOR CH 1/2W 270	1	
R325-28	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R329,30	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R331-34	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R335,36	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R337,38	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R339	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R340	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R341	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R342	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R343	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R344	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R345	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R346,47	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R348	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R349	ERJ12YJ270	M.RESISTOR CH 1/2W 270	1	
R350,51	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R352-54	EXB24V103J	COMBI.R-R 10K	3	
R400,01	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R402,03	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R404	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R405,06	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R407,08	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R409	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R410,11	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R412,13	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R414	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R415,16	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R417,18	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R419	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R420-35	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	16	ERJ3GEYJ103V
R436-39	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	4	
R440-43	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	4	
R500	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R502	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R504	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R506	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R508-15	EXB24V105J	COMBI.R-R 1M	8	
TG400	EYF6CU	TEST POINT	1	
TH400-03	VRT0139K103	THERMISTOR	4	D4CC11030006
TP100-03	EYF6CU	TEST POINT	4	
TP400-03	EYF6CU	TEST POINT	4	
TP500-03	EYF6CU	TEST POINT	4	
		MISCELLANEOUS		
	VSC5073	RF SHEILD CASE (UPPER)	1	
	VSC5074	RF SHEILD CASE (LOWER)	1	
■ E14	VEP87104B	RF EQ P.C.BOARD	1	(RTL)
C1,C2	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C4	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C6-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C12-15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C100	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C101	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C102	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C103	ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C104	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C106-09	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C110-12	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C113	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C114,15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C116,17	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	2	
C118	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C119	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C120	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	1	
C121	ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C122,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C150	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C151	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C152-58	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C160-72	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	13	
C174-77	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C184	ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	1	
C185	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C250	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C251	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C252-58	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C260-72	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	13	
C274,75	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C276	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C300	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C301	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C302-08	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C310-22	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	13	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C326,27	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C328	ECUX1C333KBV	C.CAPACITOR CH 16V 0.033U	1	
C329	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C350	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C351	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C352-58	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	7	
C360-74	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	15	
C375	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C400,01	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C402	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C404,05	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C406	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C407	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C408	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C409	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C411-14	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C415	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	ECUV1H150JCV
C416	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C417	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C418	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C419-23	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	5	
C424	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C426,27	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C428	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C429	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C430	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C431	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C433-36	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C437	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	ECUV1H150JCV
C438	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C439	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C440	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C441-45	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	5	
C446	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C448,49	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C450	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C451	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C452	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C453	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C455-58	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C459	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	ECUV1H150JCV
C460	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C461	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C462	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C463-67	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	5	
C468	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C470,71	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C472	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C473	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C474	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C475	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C477-80	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	4	
C481	ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	ECUV1H150JCV
C482	ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C483	ECUX1H100DCV	C.CAPACITOR CH 50V 10P	1	
C484	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C485-87	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	3	
C488	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C489	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C490	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C491	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C492	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C493	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C494	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C495	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C550-52	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C660	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C661	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C662	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C663	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C664	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C665	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C666	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C667	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C668-77	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	10	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C680,81	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C684	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C687-89	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C690,91	ECST1AY106Z	T.CAPACITOR CH 10V 10U	2	
C760	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C761	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C762	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C763	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C764	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C765	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C766	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C767	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C768-76	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C778	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C780	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C782	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C784	ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C789-92	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C820	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C821	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C822	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C823,24	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C825	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C826	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C827	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C828	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C829,30	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C831	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C832	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C833	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C834	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C835,36	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C837	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C838	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C839	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C840	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C841,42	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C843-54	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	12	
C855-58	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	4	
C941,42	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C943	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C944	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C946	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C947	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C949,50	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C951	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C952	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C954	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C955	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C956	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C958,59	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C960	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C961	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C962	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C964	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C965	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C967,68	ECST1AY475	T.CAPACITOR CH 10V 4.7U	2	
C969	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C970	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C972	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C973	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C974-77	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C3001	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C3002	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C3003	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C3004-07	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C3008	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C3009-12	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C3013,14	ECST1AC476Z	T.CAPACITOR CH 10V 47U	2	
C3015	ECST1EC106Z	T.CAPACITOR CH 25V 10U	1	
C3016-18	ECST1CC336Z	T.CAPACITOR CH 16V 33U	3	
C3019-24	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C3025	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C3026	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C3027,28	ECST1CX106Z	T.CAPACITOR CH 16V 10U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C3029-41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	13	
C3046-49	ECST1AY106Z	T.CAPACITOR CH 10V 10U	4	
C3050	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C3051-55	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C3104-06	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C3109	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C3111-13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C3201-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C3301-12	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	12	
C3401-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
D102	MA704	DIODE	1	
D150	MA704	DIODE	1	
D250	MA704	DIODE	1	
D300	MA704	DIODE	1	
D350	MA704	DIODE	1	
D660	MA142K	DIODE	1	
D3001	SFPB-76V	DIODE	1	
D3401-08	SFPB-76V	DIODE	8	
FL3001	VLF1016A223	FILTER	1	
IC1	TC7W32FU	IC	1	
IC2	TVHC04FT	IC	1	
IC3	TVHC21FT	IC	1	
IC4	TVHC08FT	IC	1	
IC6	TVHC244FT	IC	1	
IC7	TVHC125FT	IC	1	
IC8	TC7W125FU	IC	1	
IC9	TVHC244FT	IC	1	
IC11	TC7W125FU	IC	1	
IC12	TC7W241FU	IC	1	
IC15	VSI3508	IC	1	
IC100	THC4052FT	IC	1	
IC102	TC4W53FU	IC	1	
IC104	UPC1663G	IC	1	C1CB00000329
IC105	NJM1496V	IC	1	
IC106	TA75S558F	IC	1	
IC107	TA75S393F	IC	1	
IC108	NVHC221FT	IC	1	
IC109	TC7W74FU	IC	1	
IC110-13	TC4W53FU	IC	4	
IC150	MN673796	IC	1	
IC151	NJM062V	IC	1	
IC250	MN673796	IC	1	
IC300	MN673796	IC	1	
IC350	MN673796	IC	1	
IC400-03	UPC1663G	IC	4	C1CB00000329
IC550	M62370GP	IC	1	C0FBBD000082
IC551-54	THC4053FT	IC	4	
IC555	THC4052FT	IC	1	
IC660	NVHC32FT	IC	1	
IC669	NJM064V	IC	1	
IC700	NJM064V	IC	1	
IC703	TVHT08FT	IC	1	
IC704	TVSA0161	IC	1	C0JBAA000099
IC705	S80715ANDC	IC	1	
IC706	TVS1129	IC	1	C0JBAZ000525
IC760	NVHC32FT	IC	1	
IC761	NJM064V	IC	1	
IC772	TVHT04FT	IC	1	
IC820	NVHC00FT	IC	1	
IC821	NVHC02FT	IC	1	
IC822	NVHC125FT	IC	1	
IC823	TVHT08FT	IC	1	
IC824,25	UPC1663G	IC	2	C1CB00000329
IC826	NVHC125FT	IC	1	
IC827,28	UPC1663G	IC	2	C1CB00000329
IC829,30	NVHC125FT	IC	2	
IC940	TC7SH32FU	IC	1	
IC941	TC7SH00FU	IC	1	
IC3001	LT1129CST5	IC	1	
IC3002	LT1175CS8	IC	1	
IC3003	LT1129CS8	IC	1	
IC3004-07	XC62FP2902PR	IC	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC3008	XC62FP3002M	IC	1	
IC3201	TVHC161FT	IC	1	
IC3202	TC7W241FU	IC	1	
IC3203	TVHC157FT	IC	1	
IC3204	TC7SH02FU	IC	1	
J1,J2	VJR1094	TERMINAL	2	
L100	VLQ0133J821	COIL 820UH	1	
L101	VLQ0163J270	COIL 27UH	1	
L102	VLQ0133J821	COIL 820UH	1	
L401	VLQ0163J5R6	COIL 5.6UH	1	
L402	VLQ0163J1R0	COIL 1UH	1	G1C1R0J00008
L403	VLQ0163JR47	COIL 0.47UH	1	G1CR47J00004
L405	VLQ0163J5R6	COIL 5.6UH	1	
L406	VLQ0163J1R0	COIL 1UH	1	G1C1R0J00008
L407	VLQ0163JR47	COIL 0.47UH	1	G1CR47J00004
L409	VLQ0163J5R6	COIL 5.6UH	1	
L410	VLQ0163J1R0	COIL 1UH	1	G1C1R0J00008
L411	VLQ0163JR47	COIL 0.47UH	1	G1CR47J00004
L413	VLQ0163J5R6	COIL 5.6UH	1	
L414	VLQ0163J1R0	COIL 1UH	1	G1C1R0J00008
L415	VLQ0163JR47	COIL 0.47UH	1	G1CR47J00004
L940-47	VLQ0319K100	COIL 10UH	8	G1C100K00023
L3001	VLQ0319K100	COIL 10UH	1	G1C100K00023
L3002-05	VLQ0916N100	COIL 10UH	4	
P1	VJS3978C100A	CONNECTOR (FEMALE)	1	
P2	VJP4395D012	CONNECTOR (MALE)	1	
P3	VJS3791B050	CONNECTOR (FEMALE)	1	
P4	VJS3791D040	CONNECTER (FEMALE)	1	K1MN40B00003
P5	VJP3125B008	CONNECTOR (MALE)	1	
P820-23	VJP3358C012	CONNECTOR (MALE)	4	K1KA12A00138
Q100,01	2SC3930	TRANSISTOR	2	
Q150,51	2SA1532-B	TRANSISTOR	2	
Q152	2SC3935	TRANSISTOR	1	
Q250,51	2SA1532-B	TRANSISTOR	2	
Q252	2SC3935	TRANSISTOR	1	
Q300,01	2SA1532-B	TRANSISTOR	2	
Q302	2SC3935	TRANSISTOR	1	
Q350,51	2SA1532-B	TRANSISTOR	2	
Q352	2SC3935	TRANSISTOR	1	
Q400,01	2SC3935	TRANSISTOR	2	
Q402,03	2SC3930	TRANSISTOR	2	
Q404	2SA1532-B	TRANSISTOR	1	
Q405-07	2SC3930	TRANSISTOR	3	
Q408,09	2SC3935	TRANSISTOR	2	
Q410,11	2SC3930	TRANSISTOR	2	
Q412	2SA1532-B	TRANSISTOR	1	
Q413-15	2SC3930	TRANSISTOR	3	
Q416,17	2SC3935	TRANSISTOR	2	
Q418,19	2SC3930	TRANSISTOR	2	
Q420	2SA1532-B	TRANSISTOR	1	
Q421-23	2SC3930	TRANSISTOR	3	
Q424,25	2SC3935	TRANSISTOR	2	
Q426,27	2SC3930	TRANSISTOR	2	
Q428	2SA1532-B	TRANSISTOR	1	
Q429-31	2SC3930	TRANSISTOR	3	
Q660-63	2SB1218A-R	TRANSISTOR	4	
Q760-67	2SB1218A-R	TRANSISTOR	8	
Q820,21	2SC3935	TRANSISTOR	2	
Q822	2SB1218A-R	TRANSISTOR	1	
Q823,24	2SC3935	TRANSISTOR	2	
Q825	2SB1218A-R	TRANSISTOR	1	
Q826,27	2SC3935	TRANSISTOR	2	
Q828	2SB1218A-R	TRANSISTOR	1	
Q829,30	2SC3935	TRANSISTOR	2	
Q831	2SB1218A-R	TRANSISTOR	1	
Q940	2SA1532-B	TRANSISTOR	1	
Q941	2SC3935	TRANSISTOR	1	
Q942	2SC2954	TRANSISTOR	1	
Q943	2SA1532-B	TRANSISTOR	1	
Q944,45	2SC2954	TRANSISTOR	2	
Q946	2SC3935	TRANSISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
Q947	2SA1532-B	TRANSISTOR	1	
Q948	2SC3935	TRANSISTOR	1	
Q949	2SC2954	TRANSISTOR	1	
Q950	2SA1532-B	TRANSISTOR	1	
Q951,52	2SC2954	TRANSISTOR	2	
Q953	2SC3935	TRANSISTOR	1	
Q954	2SA1532-B	TRANSISTOR	1	
Q955	2SC3935	TRANSISTOR	1	
Q956	2SC2954	TRANSISTOR	1	
Q957	2SA1532-B	TRANSISTOR	1	
Q958,59	2SC2954	TRANSISTOR	2	
Q960	2SC3935	TRANSISTOR	1	
Q961	2SA1532-B	TRANSISTOR	1	
Q962	2SC3935	TRANSISTOR	1	
Q963	2SC2954	TRANSISTOR	1	
Q964	2SA1532-B	TRANSISTOR	1	
Q965,66	2SC2954	TRANSISTOR	2	
Q967	2SC3935	TRANSISTOR	1	
Q3001-03	HAT1033T	TRANSISTOR	3	
Q3004	2SB1218A-R	TRANSISTOR	1	
Q3005	HAT2042T	TRANSISTOR	1	
Q3006	HAT1033T	TRANSISTOR	1	
Q3007	2SB1218A-R	TRANSISTOR	1	
Q3008	HAT2042T	TRANSISTOR	1	
Q3101-03	HAT1033T	TRANSISTOR	3	
Q3106	2SB1218A-R	TRANSISTOR	1	
Q3107	HAT2042T	TRANSISTOR	1	
Q3109,10	2SB1218A-R	TRANSISTOR	2	
Q3111,12	HAT2042T	TRANSISTOR	2	
Q3114	HAT1033T	TRANSISTOR	1	
Q3301	HAT1033T	TRANSISTOR	1	
Q3302	2SB1218A-R	TRANSISTOR	1	
Q3303	HAT2042T	TRANSISTOR	1	
Q3304,05	HAT1033T	TRANSISTOR	2	
Q3306	2SB1218A-R	TRANSISTOR	1	
Q3307	HAT2042T	TRANSISTOR	1	
Q3308,09	HAT1033T	TRANSISTOR	2	
Q3310	2SB1218A-R	TRANSISTOR	1	
Q3311	HAT2042T	TRANSISTOR	1	
Q3312,13	HAT1033T	TRANSISTOR	2	
Q3314	2SB1218A-R	TRANSISTOR	1	
Q3315	HAT2042T	TRANSISTOR	1	
Q3316	HAT1033T	TRANSISTOR	1	
Q3401-08	HAT1033T	TRANSISTOR	8	
QR100	UN5213	TRANSISTOR-RESISTOR	1	
QR661,62	UN5213	TRANSISTOR-RESISTOR	2	
QR760	UN5213	TRANSISTOR-RESISTOR	1	
QR761	UN5113	TRANSISTOR-RESISTOR	1	
QR762,63	UN5213	TRANSISTOR-RESISTOR	2	
QR820-23	UN5213	TRANSISTOR-RESISTOR	4	
QR3001-04	UN5213	TRANSISTOR-RESISTOR	4	
QR3101-04	UN5213	TRANSISTOR-RESISTOR	4	
QR3109	UN5213	TRANSISTOR-RESISTOR	1	
QR3201,02	UN5213	TRANSISTOR-RESISTOR	2	
QR3301-08	UN5213	TRANSISTOR-RESISTOR	8	
QR3401-08	UN5213	TRANSISTOR-RESISTOR	8	
R1-R5	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	5	
R6,R7	EXB24V332J	COMBI.R-R 3.3K	2	
R8,R9	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R10,11	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	2	
R12-14	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	3	
R15,16	EXB24V105J	COMBI.R-R 1M	2	
R17,18	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R19-26	EXB24V105J	COMBI.R-R 1M	8	
R27,28	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R29,30	EXB24V332J	COMBI.R-R 3.3K	2	
R31	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R32,33	EXB24V332J	COMBI.R-R 3.3K	2	
R34	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R36	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R38-47	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	10	
R48	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R49-56	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	8	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R57-64	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	8	ERJ3GEY0R00V
R65	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R66	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R67	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R68	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R81	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R90	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R102-09	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	8	ERJ6GEY0R00V
R110	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R111	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R112,13	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R114	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R115,16	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R117	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R118,19	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R120,21	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R122-24	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	3	
R125	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	1	
R126,27	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R128	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R129	ERJ3GEYJ560	M.RESISTOR CH 1/16W 56	1	
R130	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R131	ERJ3RBD391	M.RESISTOR CH 1/16W 390	1	
R132	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R133	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R134	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R135	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R136	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R137	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R138	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R141	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R142	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R143	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R144,45	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R146	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R149	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R151	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R154	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R155	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R156	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R157	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R158,59	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R160	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R163	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R164	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R165	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R166	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R175-77	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R181	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R182	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R183	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R184	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	ERJ3GEYJ273V
R185	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R186	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R187	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R188,89	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R190	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R191	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R192	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R193	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R194	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R196	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R210	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R211	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R212	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R213,14	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	2	
R223	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R251	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R254	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R255	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R256	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R257	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R258,59	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R260	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R261	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R263	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R264	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R265	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R266	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R271	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R275-77	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R287	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R288,89	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R290	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R291	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R292	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R293	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R294	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R296	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R297	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R301	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R304	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R305	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R306	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R307	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R308,09	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R310	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R312	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R313	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R314	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R315	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R316	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R321	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R325-27	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R333	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R334	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	ERJ3GEYJ273V
R335	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R336	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R337	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R338,39	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R340	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R341	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R342	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R343	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R344	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R346	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R347	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R351	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R354	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R355	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R356	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R357	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R358,59	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R360	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R361,62	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R363	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R364	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R365	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R366	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R371	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R375-77	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R383	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R384,85	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R386	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R387	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R388	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R389	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R390	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R392	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R393	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R400,01	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R402	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R403,04	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R405	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R406	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R407	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R408	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R409	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R410	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R411	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R412	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R413	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R414	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R415	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R416	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R417	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R418	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R419	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R421,22	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R423,24	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R425	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R426,27	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R428	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R429	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R430	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R431	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R432,33	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R434	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R435,36	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R437	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R438	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R439	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R440	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R441	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R442	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R443	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R444	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R445	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R446	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R447	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R448	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R449	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R450	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R451	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R453,54	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R455,56	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R457	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R458,59	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R460	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R461	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R462	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R463	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R464,65	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R466	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R467,68	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R469	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R470	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R471	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R472	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R473	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R474	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R475	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R476	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R477	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R478	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R479	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R480	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R481	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R482	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R483	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R485,86	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R487,88	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R489	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R490,91	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R492	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R493	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R494	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R495	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R496,97	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R498	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R499,00	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R501	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R502	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R503	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R504	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R505	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R506	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R507	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R508	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R509	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R510	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R511	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R512	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R513	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R514	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R515	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R517,18	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R519,20	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R521	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R522,23	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R524	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R525	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R526	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R527	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R528-35	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	8	
R550-52	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	3	
R553-55	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R557	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R559	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R561	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R563	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R660-79	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	20	ERJ3GEYJ103V
R680	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R681,82	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R683	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R684-87	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	ERJ3GEYJ103V
R688	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R689,90	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R691,92	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	2	
R693-95	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R696	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R697-99	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R712,13	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R716	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R725	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R735	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R737	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R738-41	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	4	
R760-79	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	20	ERJ3GEYJ103V
R780	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R781,82	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R783	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R784-87	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	ERJ3GEYJ103V
R788	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R789,90	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R791,92	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	2	
R793-95	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R796	ERJ3GEYG682	M.RESISTOR CH 1/16W 6.8K	1	
R797-99	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R801-03	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R805-07	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R808	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R809-11	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R813-17	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	5	ERJ3GEYJ103V
R827,28	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R831,32	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R833	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R835,36	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R838	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R839,40	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R842,43	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R844,45	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R846,47	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R848,49	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	2	
R850	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R851	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R852	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R854,55	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R857	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R858,59	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R861,62	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R863,64	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R865,66	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R867,68	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	2	
R869	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R870	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R878,79	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R882,83	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	2	
R884	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R886,87	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R889	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R890,91	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R893,94	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R895,96	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R897,98	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R899,00	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	2	
R901	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R902	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R903	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R905,06	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R908	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R909,10	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R912,13	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	2	
R914,15	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	2	
R916,17	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R918,19	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	2	
R920	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R921	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R922-25	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	ERJ3GEYJ103V
R926-29	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	4	
R940	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R941,42	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R943	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R944	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R945	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R947	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R948	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R949	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R950	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R951	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R953,54	ERJ12YJ560	M.RESISTOR CH 1/2W 56	2	
R955	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R956	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R957	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R958	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R960	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R961,62	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R963	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R964	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R965	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R967	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R968	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R969	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R970	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R971	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R973,74	ERJ12YJ560	M.RESISTOR CH 1/2W 56	2	
R976	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R977	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R978	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R979	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R981	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R982,83	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R984	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R985	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R986	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R988	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R989	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R990	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R991	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R992	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R994,95	ERJ12YJ560	M.RESISTOR CH 1/2W 56	2	
R996	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R997	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R998	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R999	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1001	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R1002,03	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R1004	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R1005	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R1006	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R1008	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1009	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R1010	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1011	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1012	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1014,15	ERJ12YJ560	M.RESISTOR CH 1/2W 56	2	
R1016	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1017	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R1018	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R1019	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R1027	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R3001-09	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	9	ERJ3GEY0R00V
R3010	ERJ3RBD133	M.RESISTOR CH 1/16W 13K	1	
R3011	ERJ3RBD104	M.RESISTOR CH 1/16W 100K	1	
R3012	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R3013	ERJ3RED154	M.RESISTOR CH 1/16W 150K	1	
R3014	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R3019	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R3026,27	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R3029,30	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3032	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3033	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3034	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3035	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3036	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3038	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3040	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3042	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3043,44	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3048	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R3106	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3108	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3110	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3111,12	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3113	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3114	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3121,22	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R3124	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3125	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3128	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3130	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3132	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3134,35	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R3136	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R3148	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3152	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3205,06	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R3301	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3302	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3303	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3304	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3305	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3306	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3307	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3308	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3309	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3310	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3311	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3312	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3313	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3314	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3315	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3316	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3317	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3318	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3319	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3320	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3321	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3322	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3323	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R3324	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R3325	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3326	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3327	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3328	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3401	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3402	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3403	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3404	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3405	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3406	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3407	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3408	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3409	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3410	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3411	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3412	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3413	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3414	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R3415	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R3416	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
TG820	EYF6CU	TEST POINT	1	
TG940	EYF6CU	TEST POINT	1	
TG3001	EYF6CU	TEST POINT	1	
TP100-03	EYF6CU	TEST POINT	4	
TP151	EYF6CU	TEST POINT	1	
TP251	EYF6CU	TEST POINT	1	
TP301	EYF6CU	TEST POINT	1	
TP351	EYF6CU	TEST POINT	1	
TP400-07	EYF6CU	TEST POINT	8	
TP660-63	EYF6CU	TEST POINT	4	
TP820-23	EYF6CU	TEST POINT	4	
TP940-43	EYF6CU	TEST POINT	4	
VR100-07	EVM7JGA00B52	V.RESISTOR 500	8	EVM7JSX30B52
VR108	EVM7JGA00B15	V.RESISTOR 100K	1	EVM7JSX30B15
VR400	EVM7JGA00B14	V.RESISTOR 10K	1	
VR401	EVM7JGA00B22	V.RESISTOR 200	1	EVM7JSX30B22
VR402	EVM7JGA00B14	V.RESISTOR 10K	1	
VR403	EVM7JGA00B22	V.RESISTOR 200	1	EVM7JSX30B22
VR404	EVM7JGA00B14	V.RESISTOR 10K	1	
VR405	EVM7JGA00B22	V.RESISTOR 200	1	EVM7JSX30B22
VR406	EVM7JGA00B14	V.RESISTOR 10K	1	
VR407	EVM7JGA00B22	V.RESISTOR 200	1	EVM7JSX30B22
VR820-23	EVM7JGA00B13	V.RESISTOR 1K	4	
		MISCELLANEOUS		
	XYN26+K6	SCREW	2	
	VSC5129	HEAT SINK	1	
	VMG1339	THERMO-CONDUCTIVE SHEET A	1	
■ E15	VEP81192C	POWER MAIN P.C.BOARD	1	(RTL)
C1001	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1002	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C1003	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1004	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C1005	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1006	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1009	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1010	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1011	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1012	ECST1AY475	T.CAPACITOR CH 10V 4.7U	1	
C1013,14	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	2	
C1015	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1017	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1018	VCEA1DSP680	E.CAPACITOR 20V 68U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1020	VCEA1ASP101	E.CAPACITOR 10V 100U	1	
C1021	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1022,23	VCEA0JSP151	E.CAPACITOR 6.3V 150U	2	
C1024	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1025	EEFCD1B220R	E.CAPACITOR 12.5V 22U	1	
C1026	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1027	EEFCD0J470R	E.CAPACITOR 6.3V 47U	1	
C1028	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1029	EEFCD1B220R	E.CAPACITOR 12.5V 22U	1	
C1030	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1031-33	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	3	ECUV1E104KBN
C1034,35	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	2	
C1036	ECST1VD106	E.CAPACITOR 35V 10M	1	
C1037	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1038	ECST1VD106	E.CAPACITOR 35V 10M	1	
C1039	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1101	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1102	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C1103	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1104	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C1105	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1106	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1109	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1110	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1111	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1112	ECST1AY475	T.CAPACITOR CH 10V 4.7U	1	
C1113,14	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	2	
C1115	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1117	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1118	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1120	VCEA1ASP101	E.CAPACITOR 10V 100U	1	
C1121	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1122	VCEA0JSP151	E.CAPACITOR 6.3V 150U	1	
C1123	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1124	EEFCD1B220R	E.CAPACITOR 12.5V 22U	1	
C1125	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1126	EEFCD0J470R	E.CAPACITOR 6.3V 47U	1	
C1127	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1201	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1202	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C1203	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1209	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1210	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C1212	ECST1AY475	T.CAPACITOR CH 10V 4.7U	1	
C1213,14	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	2	
C1215	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1220	VCEA0JSP151	E.CAPACITOR 6.3V 150U	1	
C1221	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1224	EEFCD0J470R	E.CAPACITOR 6.3V 47U	1	
C1225	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
D1001,02	MA142WK	DIODE	2	
D1003	MA142WA	DIODE	1	
D1004	MA142WK	DIODE	1	
D1005,06	SFPB-76V	DIODE	2	
D1007	MA8068-MH	DIODE	1	
D1008	MA8062-MH	DIODE	1	
D1009	MA8027-H	DIODE	1	
D1010	MA142K	DIODE	1	
D1011	MA142WK	DIODE	1	
D1101,02	MA142WK	DIODE	2	
D1103	MA142WA	DIODE	1	
D1104	MA142WK	DIODE	1	
D1105,06	SFPB-76V	DIODE	2	
D1107	MA8068-MH	DIODE	1	
D1108	MA8062-MH	DIODE	1	
D1201	MA142WK	DIODE	1	
D1203	MA142K	DIODE	1	
D1205	SFPB-76V	DIODE	1	
D1207	MA8062-MH	DIODE	1	
D1208	MA142K	DIODE	1	
IC1001	LTC1628IG	IC	1	
IC1002	TC4S81F	IC	1	C0JBAA000075
IC1003	NJM78L05UA	IC	1	C0CBADC00010

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC1004	NJM2903M	IC	1	
IC1101	LTC1628IG	IC	1	
IC1201	LTC1628IG	IC	1	
L1001,02	VLQ0916N2R5	COIL 2.5UH	2	
L1003,04	VLQ0859M150	COIL 15UH	2	
L1005	VLQ0916N5R3	COIL 5.3UH	1	
L1006	VLQ0916N2R5	COIL 2.5UH	1	
L1007	VLQ0916N5R3	COIL 5.3UH	1	
L1008-11	VLP0353	COIL	4	
L1101,02	VLQ0916N2R5	COIL 2.5UH	2	
L1103,04	VLQ0859M150	COIL 15UH	2	
L1105,06	VLQ0916N5R3	COIL 5.3UH	2	
L1107-10	VLP0353	COIL	4	
L1201	VLQ0916N2R5	COIL 2.5UH	1	
L1203	VLQ0859M220	COIL 22UH	1	
L1205	VLQ0916N5R3	COIL 5.3UH	1	
L1206,07	VLP0353	COIL	2	
P1002	VJP4064K040C	CONNECTOR (MALE)	1	K1KB40A00064
P1003	VJS4329A034	CONNECTOR (FEMALE)	1	
P1004	VJP1233T	CONNECTOR (MALE) 6P	1	
Q1001-04	TM3115	TRANSISTOR	4	B1DFGD000010
Q1005	2SD1820A-R	TRANSISTOR	1	
Q1101-04	TM3115	TRANSISTOR	4	B1DFGD000010
Q1201,02	TM3115	TRANSISTOR	2	B1DFGD000010
QR1001	UN5211	TRANSISTOR-RESISTOR	1	
QR1002	UN5113	TRANSISTOR-RESISTOR	1	
QR1003,04	UN5211	TRANSISTOR-RESISTOR	2	
QR1101	UN5211	TRANSISTOR-RESISTOR	1	
QR1201	UN5211	TRANSISTOR-RESISTOR	1	
R1001	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R1003	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1004,05	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R1006	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R1007	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1008	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	1	
R1009	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R1010	ERJ3RBD513	M.RESISTOR CH 1/16W 51K	1	
R1012	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1013	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	ERJ6GEYJ100V
R1014,15	VRE0221H22M	M.RESISTOR	2	
R1016,17	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1018-20	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	3	
R1021	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R1022	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1023	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	1	
R1024	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1025-27	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	3	ERJ3GEYJ103V
R1029	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R1030	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1031	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R1032	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1033	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1035	ERJ8GEY0R00	M.RESISTOR CH 1/8W 0	1	ERJ8GEY0R00V
R1101	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R1103	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1104,05	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R1106	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R1107	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R1108	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R1109	ERJ3RBD473	M.RESISTOR CH 1/16W 47K	1	
R1110	ERJ3RBD623	M.RESISTOR CH 1/16W 62K	1	
R1112	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1113	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	ERJ6GEYJ100V
R1114	VRE0221H22M	M.RESISTOR	1	
R1115	VRE0221H33M	M.RESISTOR	1	
R1116,17	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1201	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R1203	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1204	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1209,10	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1212	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1213	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	ERJ6GEYJ100V
R1214	VRE0221H33M	M.RESISTOR	1	
R1216	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1217	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
TG1001	EYF6CU	TEST POINT	1	
■ E16	VEP81204B	POWER SUB P.C.BOARD	1	(RTL)
C1302	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1303	ECST1VD106	E.CAPACITOR 35V 10M	1	
C1304	ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C1305	ECST1VY104Z	T.CAPACITOR CH 35V 0.1U	1	
C1306	ECUX1H682KBN	C.CAPACITOR CH 50V 6800P	1	ECUV1H682KBN
C1307	ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
C1308	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C1309,10	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C1311	ECUX1H183KBV	C.CAPACITOR CH 50V 0.018U	1	
C1313	ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C1316	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1317	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1318	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1320	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C1323	VCEA1ASP181	E.CAPACITOR 10V 180U	1	
C1324	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1325,26	EEFCD1B220R	E.CAPACITOR 12.5V 22U	2	
C1327,28	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	2	
C1329	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1330	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1331	ECST1EX335Z	T.CAPACITOR CH 25V 3.3U	1	
C1332	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C1334	VCEA1CSP680	E.CAPACITOR 16V 68U	1	
C1335	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1336	EEFCD1C8R2R	E.CAPACITOR 16V 8.2U	1	
C1337	ECUX1C106KBP	C.CAPACITOR CH 16V 10U	1	
C1401	ECST1CY105Z	T.CAPACITOR CH 16V 1U	1	
C1402	ECST1VY104Z	T.CAPACITOR CH 35V 0.1U	1	
C1403	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C1404	ECUX1C473KBN	C.CAPACITOR CH 16V 0.047U	1	
C1405	ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
C1406	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1408	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1409	ECUX1H681JCV	C.CAPACITOR CH 50V 680P	1	
C1410	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1412	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C1413	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1414	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C1415	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1416,17	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C1418,19	ECUX1H333KBN	C.CAPACITOR CH 50V 0.033U	2	
C1421,22	ECUX1H333KBN	C.CAPACITOR CH 50V 0.033U	2	
C1424	ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1425	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C1426	VCEA1CSP680	E.CAPACITOR 16V 68U	1	
C1427,28	VCEA1DSP470	E.CAPACITOR 20V 47U	2	
C1429	EEUFC1J680	E.CAPACITOR 63V 68U	1	
C1430	VCEA1DSP470	E.CAPACITOR 20V 47U	1	
C1431	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
C1432	EEFCD1C8R2R	E.CAPACITOR 16V 8.2U	1	
C1433	ECUM1E224KBN	C.CAPACITOR CH 25V 0.22U	1	
D1303	MA142WK	DIODE	1	
D1304,05	NSQ03A04	DIODE	2	B0JCPE000013
D1306	MA8100-M	DIODE	1	
D1307-10	MA142K	DIODE	4	
D1311	MA8120-M	DIODE	1	
D1312	NSQ03A04	DIODE	1	B0JCPE000013
D1313	MA142K	DIODE	1	
D1401-04	SFPB-76V	DIODE	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
D1405	U1GU44	DIODE	1	
D1406	SFPB-76V	DIODE	1	
D1407	MA739	DIODE	1	
D1408-12	MA8068-MH	DIODE	5	
D1413	MA142K	DIODE	1	
D1414	MA8100-M	DIODE	1	
D1415	MA8068-MH	DIODE	1	
D1416	MA8100-M	DIODE	1	
D1417	MA8068-MH	DIODE	1	
D1418	MA142WA	DIODE	1	
D1419	MA142WK	DIODE	1	
IC1301,02	BA9743AFV	IC	2	
L1301	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1302,03	VLP0353	COIL	2	
L1304,05	VLQ0916N2R5	COIL 2.5UH	2	
L1306	VLQ0859M220	COIL 22UH	1	
L1307,08	VLQ0916N5R3	COIL 5.3UH	2	
L1309	VLQ0859M680	COIL 68UH	1	
L1310	VLQ0916N5R3	COIL 5.3UH	1	
L1401,02	VLP0353	COIL	2	
L1403	VLQ0916N2R5	COIL 2.5UH	1	
L1404,05	VLQ0916N5R3	COIL 5.3UH	2	
P1301	VJS4064K040H	CONNECTOR (FEMALE)	1	
Q1302	2SD1820A-R	TRANSISTOR	1	
Q1303	2SB1219A-R	TRANSISTOR	1	
Q1304	XN4401	TRANSISTOR-RESISTOR	1	
Q1305	2SD1820A-R	TRANSISTOR	1	
Q1306	2SJ489-4061	FET	1	
Q1307,08	2SD1820A-R	TRANSISTOR	2	
Q1309	2SB1219A-R	TRANSISTOR	1	
Q1310	XN4401	TRANSISTOR-RESISTOR	1	
Q1311	2SD1820A-R	TRANSISTOR	1	
Q1312,13	2SJ489-4061	FET	2	
Q1401	2SD1820A-R	TRANSISTOR	1	
Q1402-04	2SB1219A-R	TRANSISTOR	3	
Q1405	2SD1820A-R	TRANSISTOR	1	
Q1406	2SB1219A-R	TRANSISTOR	1	
Q1407	XN4401	TRANSISTOR-RESISTOR	1	
Q1408	2SD1820A-R	TRANSISTOR	1	
Q1409	XN4401	TRANSISTOR-RESISTOR	1	
Q1410	2SD1820A-R	TRANSISTOR	1	
Q1411,12	2SK1748-Z	TRANSISTOR	2	
Q1413	2SD1820A-R	TRANSISTOR	1	
QR1301	UN5112	TRANSISTOR-RESISTOR	1	
QR1302	UN5211	TRANSISTOR-RESISTOR	1	
QR1303	UN5111	TRANSISTOR-RESISTOR	1	
QR1304	UN5211	TRANSISTOR-RESISTOR	1	
QR1401	UN5211	TRANSISTOR-RESISTOR	1	
QR1402	UN5113	TRANSISTOR-RESISTOR	1	
QR1403,04	UN5211	TRANSISTOR-RESISTOR	2	
QR1405	UN5111	TRANSISTOR-RESISTOR	1	
QR1406,07	UN5211	TRANSISTOR-RESISTOR	2	
QR1408	UN5111	TRANSISTOR-RESISTOR	1	
R1303	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1304	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	1	
R1305	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R1306	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	1	
R1307-10	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	4	
R1311	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1312	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R1313	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R1314	ERJ3RBD242	M.RESISTOR CH 1/16W 2.4K	1	
R1315	ERJ3RBD363	M.RESISTOR CH 1/16W 36K	1	
R1316	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R1317	ERJ3RBD512	M.RESISTOR CH 1/16W 5.1K	1	
R1318	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1320	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R1321	ERJ3RBD911	M.RESISTOR CH 1/16W 910	1	
R1322	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1323	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1324	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1327	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1328	ERJL14KJ50M	M.RESISTOR CH 1/4W 5	1	
R1329	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R1330	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1331	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1332	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1335,36	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R1337	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1338	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1339	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R1340	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1341	ERJ14RSJR10	M.RESISTOR CH 1/4W 0.1	1	
R1342	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R1343	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1344	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1345	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1349	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1350,51	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	2	
R1352	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1353-55	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	3	ERJ6GEY0R00V
R1401-04	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	4	
R1405	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1406	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1407	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R1408	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1409	ERJ3RBD683	M.RESISTOR CH 1/16W 68K	1	
R1410	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R1411	ERJ3RBD622	M.RESISTOR CH 1/16W 6.2K	1	
R1412	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1413	ERJ3RBD823	M.RESISTOR CH 1/16W 82K	1	
R1414	ERJ3RBD681	M.RESISTOR CH 1/16W 680	1	
R1415	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R1416	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R1417	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1418	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1419	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R1420	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1421	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1422	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R1423	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1424	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R1425	ERJ14RSJR10	M.RESISTOR CH 1/4W 0.1	1	
R1426	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R1427	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1428	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1429	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1430	ERJ14RSJR10	M.RESISTOR CH 1/4W 0.1	1	
R1431	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R1432	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R1433	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1434	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1435	ERJ8GEYJ472	M.RESISTOR CH 1/8W 4.7K	1	
R1436	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1437	ERJ8GEYJ472	M.RESISTOR CH 1/8W 4.7K	1	
R1439	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1440	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1440	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R1442	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R1444	ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R1445,46	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1447	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1448-50	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R1451	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1452	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1453	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R1454,55	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	2	
R1456	ERJ6GEYG564	M.RESISTOR CH 1/10W 560K	1	
T1401	VTP0540	TRANSFORMER	1	
T1402	VTP0541	TRANSFORMER	1	
TG1301	EYF6CU	TEST POINT	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
TP1301	EYF6CU	TEST POINT	1	
■ E17	VEP84331A	AUDIO LCD P.C.BOARD	1	(RTL)
B62000	BCR20H4	BUTTON BATTERY HOLDER	1	
C40001	ECUM1C334ZFN	C.CAPACITOR CH 16V 0.33U	1	
C40002	EEVHB1H100P	E.CAPACITOR 50V 10U	1	
C40003-08	EEVHB0J470	E.CAPACITOR 6.3V 47U	6	EEVHB0J470R
C40009	EEVHB0G470	E.CAPACITOR 4V 47U	1	
C40010	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C40011-14	EEVHB0J470	E.CAPACITOR 6.3V 47U	4	EEVHB0J470R
C40015	EEVHB1H100P	E.CAPACITOR 50V 10U	1	
C40016-19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C41001,02	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C41003,04	EEVHB1H100P	E.CAPACITOR 50V 10U	2	
C41005	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C41006,07	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C41008	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C41009,10	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C41011,12	EEVHB1H100P	E.CAPACITOR 50V 10U	2	
C41013	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C41014	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C41015	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C41016	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C41017,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C41019	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C41020	ECUM1H153KBN	C.CAPACITOR CH 50V 0.015U	1	
C41021,22	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	2	
C41023-26	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C41027,28	ECUM1H104KBM	C.CAPACITOR CH 50V 0.1U	2	
C41029,30	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C41031-34	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C42001,02	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C42003,04	EEVHB1H100P	E.CAPACITOR 50V 10U	2	
C42005	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C42006,07	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C42008	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C42009,10	ECUX1H471JCV	C.CAPACITOR CH 50V 470P	2	
C42011,12	EEVHB1H100P	E.CAPACITOR 50V 10U	2	
C42013	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C42014	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C42015	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C42016	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C42017,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C42019	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C42020	ECUM1H153KBN	C.CAPACITOR CH 50V 0.015U	1	
C42021,22	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	2	
C42023-26	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C42027,28	ECUM1H104KBM	C.CAPACITOR CH 50V 0.1U	2	
C42029,30	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C42031	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C43001	EEVHP0J470	E.CAPACITOR 6.3V 47U	1	
C43002	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C43003-06	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C43007	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C43008	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C43009	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C43010	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C43011	EEVHP0J470	E.CAPACITOR 6.3V 47U	1	
C43012	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C43013-16	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C43017	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C43018	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C43019	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C43020	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C43021	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C43022,23	ECHU1H102JB	P.CAPACITOR 50V 1000P	2	
C43024	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C43025,26	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C43027	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C44001-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C44005	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44006	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C44007	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44008	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44009	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C44010	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44011	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44012	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C44013	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44014	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C44015	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44016	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44017	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C44018	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44019	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C44020	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C44021	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44022	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C44023-25	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C44026,27	EEVHB1C100	E.CAPACITOR 16V 10U	2	EEVHB1C100R
C44028-30	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C44031	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C44032-34	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C44035	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C44036	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C44037	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C44038	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C44039	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C44040,41	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C44042	EEVHB0J220	E.CAPACITOR 6.3V 22U	1	
C44043,44	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45001,02	EEVHP0J100	E.CAPACITOR 6.3V 10U	2	
C45003,04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45005	EEVHP1C100	E.CAPACITOR 16V 10U	1	EEVHP1C100R
C45006,07	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45008,09	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C45010,11	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C45012,13	EEVHP0J100	E.CAPACITOR 6.3V 10U	2	
C45014,15	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45016	EEVHP1C100	E.CAPACITOR 16V 10U	1	EEVHP1C100R
C45017,18	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45019,20	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	2	
C45021,22	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C45023,24	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C45025,26	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	2	
C45028-31	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C45033,34	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C45035,36	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C46001	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C46002	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C46003	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C46004	ECUX1C224ZFV	C.CAPACITOR CH 16V 0.22U	1	
C46005	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C46006	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C46007	ECUX1C224ZFV	C.CAPACITOR CH 16V 0.22U	1	
C46008	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C46009	ECUM1E473KBN	C.CAPACITOR CH 25V 0.047U	1	
C46010	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C46011	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C46012	EEVHB0J101	E.CAPACITOR 6.3V 100U	1	
C46013,14	EEVHB1C100	E.CAPACITOR 16V 10U	2	EEVHB1C100R
C46015,16	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	2	
C46017-19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C46021,22	ECCF1H470JC	C.CAPACITOR 50V 470P	2	
C47001-04	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C47005	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C47006-09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C47010	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C47011	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C47012	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C47013	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C47014	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C47015,16	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C47017	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C47018,19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C47020	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C47021	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C48001	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C48002-05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C48006	ECUX1H181JCV	C.CAPACITOR CH 50V 180P	1	
C48007	ECUX1H391JCV	C.CAPACITOR CH 50V 390P	1	
C48008,09	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	2	
C48010	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C48011	EEVHB1C220	E.CAPACITOR 16V 22U	1	
C48012	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C48013	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C48014	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C48015	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C48016	ECST1VY104Z	T.CAPACITOR CH 35V 0.1U	1	
C48017	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C48021	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C48022,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C48024,25	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C48026	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C60001-06	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	6	ECUV1H103KBV
C60007	EEVHB1HR33	E.CAPACITOR 50V 0.33U	1	
C60009-13	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	5	ECUV1H103KBV
C60014	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C60015	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C60016	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C60017,18	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C60019,20	ECUX1H561JCV	C.CAPACITOR CH 50V 560P	2	
C60021,22	EEVHB1C470	E.CAPACITOR 16V 47U	2	
C60023-26	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	4	ECUV1H103KBV
C61000-02	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	ECUV1H103KBV
C62002	EEVHB1V220P	E.CAPACITOR 35V 22U	1	
C62004	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C62005	EEVHB0J470	E.CAPACITOR 6.3V 47U	1	EEVHB0J470R
C62006	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C62007	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C62008,09	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C62010	EEVHB1C100	E.CAPACITOR 16V 10U	1	EEVHB1C100R
C62012	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C62016,17	EEVHB0J330	E.CAPACITOR 6.3V 33U	2	EEVHB0J330R
C62018,19	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C62020	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C62021	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	EEVHB0J330R
C62022	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C62023	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C62024	EEVHB0J330	E.CAPACITOR 6.3V 33U	1	EEVHB0J330R
D40001	MA142WK	DIODE	1	
D41001,02	MA142K	DIODE	2	
D41003-06	MA3J14300L	DIODE	4	
D42001,02	MA142K	DIODE	2	
D42003-06	MA3J14300L	DIODE	4	
D43001-03	MA142K	DIODE	3	
D46001	MA3J14300L	DIODE	1	
D60001	MA142WA	DIODE	1	
D60002,03	MA714	DIODE	2	
D61000	BR3902S	DIODE	1	B3AAA0000432
D61001-10	LNJ310M6URA	DIODE	10	
D61011-26	MA142WK	DIODE	16	
D62001	MA142K	DIODE	1	
D62002	MA8150-H	DIODE	1	
D62003	MA142K	DIODE	1	
D62005	MA142WA	DIODE	1	
DP61000	T554010A	DISPLAY	1	
FL48001	VLF1069	FILTER	1	
IC40001	NJM78L09UA	IC	1	C0CBAHC00002
IC40002	TVHC165FT	IC	1	
IC41001-03	NJM2122M	IC	3	
IC41004	NJM4580ED	IC	1	C0ABBB000123
IC41005	MC14053BF	IC	1	
IC41006	NJM2904M	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC41007	NJM4580ED	IC	1	C0ABBB000123
IC42001-03	NJM2122M	IC	3	
IC42004	NJM4580ED	IC	1	C0ABBB000123
IC42005	MC14053BF	IC	1	
IC43001	C0JBAR000242	IC	1	C0JBAR000021
IC43002	NJM4580ED	IC	1	C0ABBB000123
IC43003	C0JBAR000242	IC	1	C0JBAR000021
IC43004	NJM4580ED	IC	1	C0ABBB000123
IC43005	TVHC08FT	IC	1	
IC43006	NJM062M-D	IC	1	
IC44001	XC62FP5002P	IC	1	
IC44002,03	NJM2100MD	IC	2	
IC44004	NJM4580ED	IC	1	C0ABBB000123
IC44005	AK5340VS	IC	1	
IC44006	TC7W125FU	IC	1	
IC44007	TVHT244FT	IC	1	
IC44008	AK4320VM	IC	1	C0FBBJ000006
IC44009	NJM062M-D	IC	1	
IC44010	MC14053BF	IC	1	
IC44011	TC7W04FU	IC	1	
IC45001	NJM062M-D	IC	1	
IC45002	NJM4556AM	IC	1	
IC45003	NJM062M-D	IC	1	
IC45004	NJM4556AM	IC	1	
IC45005	NJM062M-D	IC	1	
IC45006	C0JBAR000242	IC	1	C0JBAR000021
IC45007	MC14053BF	IC	1	
IC45008	NJM062M-D	IC	1	
IC46001	NJM2073M	IC	1	
IC46002	NJM386M	IC	1	
IC46003	BA6138F	IC	1	
IC47001	MS5117805D6J	IC	1	
IC47002	MB621926	IC	1	
IC47003	TC7W04FU	IC	1	
IC47004	TVHT244FT	IC	1	
IC47005	AK4320VM	IC	1	C0FBBJ000006
IC47007,08	NJM062M-D	IC	2	
IC48001	MC14053BF	IC	1	
IC48002	NJM062M-D	IC	1	
IC48003	CXA1552M	IC	1	
IC48005	NJM062M-D	IC	1	
IC60001	TVHC08FT	IC	1	
IC60002	TVHC04FT	IC	1	
IC60003	TVHC32FT	IC	1	
IC60004	TVHC74FT	IC	1	
IC60005,06	TVHT573FT	IC	2	
IC60008	LVX3245QSC	IC	1	
IC60009	STK12C68S45	IC	1	
IC60010	C0EBJ0000049	IC	1	
IC60011	LVX3245QSC	IC	1	
IC61000	UPD16431AGC	IC	1	C0HBA0000023
IC61002	THC4053FT	IC	1	
IC62001	S81350HGKD	IC	1	
IC62002	AN77L10M	IC	1	
IC62003	XC62FP3202M	IC	1	
IC62007	S8420BF	IC	1	
IC62009	TVHT541FT	IC	1	
IC62010	UPD4992GS	IC	1	
ID60001	VVVSI3430C	SOFTWARE	1	
IP60001	D70F3017AGC	IC	1	
L40001,02	VLF1151A132	COIL	2	
L41001-04	VLQ0163J100	COIL 10UH	4	
L42001-04	VLQ0163J100	COIL 10UH	4	
L44001	VLQ0163J100	COIL 10UH	1	
P40001	VJS2848D015	CONNECTOR (FEMALE)	1	K1MN15B00017
P40002	VJS2848D020	CONNECTER (FEMALE)	1	K1MN20B00013
P40003	VJS2848D012	CONNECTOR (FEMALE)	1	
P40004-06	VJP4395B006	CONNECTOR (MALE)	3	
P40007	VJP4395D003	CONNECTOR (MALE)	1	
P40008	VJP4395D014	CONNECTOR (MALE)	1	
P40009	VJS2848D015	CONNECTOR (FEMALE)	1	K1MN15B00017

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P40010	VJP4395D004	CONNECTOR (MALE)	1	
P40011	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P40013	VJS3791B020	CONNECTOR (FEMALE)	1	
PC41001	MCD5223	IC	1	B3RAC0000004
PC42001	MCD5223	IC	1	B3RAC0000004
Q40001	2SD1821-R	TRANSISTOR	1	
Q40002,03	2SD602A-R	TRANSISTOR	2	
Q40004,05	2SB710A-R	TRANSISTOR	2	
Q41001,02	2SB1220-R	TRANSISTOR	2	
Q42001,02	2SB1220-R	TRANSISTOR	2	
Q43001,02	2SD1979	TRANSISTOR	2	
Q43003	2SD1819A-R	TRANSISTOR	1	
Q43004	2SD1979	TRANSISTOR	1	
Q43005,06	2SD1819A-R	TRANSISTOR	2	
Q43007,08	2SD1979	TRANSISTOR	2	
Q43009	2SD1819A-R	TRANSISTOR	1	
Q43010	2SD1979	TRANSISTOR	1	
Q43011,12	2SD1819A-R	TRANSISTOR	2	
Q43013	2SK663-R	TRANSISTOR	1	
Q44001	XN1213	TRANSISTOR-RESISTOR	1	
Q45001,02	2SD1979	TRANSISTOR	2	
Q45003	HAT1033T	TRANSISTOR	1	
Q45004	HAT2042T	TRANSISTOR	1	
Q46001-04	2SD1979	TRANSISTOR	4	
Q46005	2SB1219-R	TRANSISTOR	1	
Q47001	HAT1033T	TRANSISTOR	1	
Q61000,01	2SD602A-S	TRANSISTOR	2	
Q62001,02	2SD968-R	TRANSISTOR	2	
Q62003-10	XN1213	TRANSISTOR-RESISTOR	8	
QR40001	UN5113	TRANSISTOR-RESISTOR	1	
QR41001	UN5113	TRANSISTOR-RESISTOR	1	
QR41002,03	UN521F	TRANSISTOR-RESISTOR	2	
QR41004-06	UN5113	TRANSISTOR-RESISTOR	3	
QR41007,08	UN5213	TRANSISTOR-RESISTOR	2	
QR42001	UN5113	TRANSISTOR-RESISTOR	1	
QR42002,03	UN521F	TRANSISTOR-RESISTOR	2	
QR42004,05	UN5113	TRANSISTOR-RESISTOR	2	
QR42006,07	UN5213	TRANSISTOR-RESISTOR	2	
QR43001,02	UN5113	TRANSISTOR-RESISTOR	2	
QR43003,04	UN5213	TRANSISTOR-RESISTOR	2	
QR43005,06	UN5113	TRANSISTOR-RESISTOR	2	
QR43007,08	UN5213	TRANSISTOR-RESISTOR	2	
QR45001,02	UN5213	TRANSISTOR-RESISTOR	2	
QR45003	UN5113	TRANSISTOR-RESISTOR	1	
QR46001	UN5113	TRANSISTOR-RESISTOR	1	
QR46002	UN5213	TRANSISTOR-RESISTOR	1	
QR46003	UN5113	TRANSISTOR-RESISTOR	1	
QR47001,02	UN5213	TRANSISTOR-RESISTOR	2	
QR61000,01	UN5113	TRANSISTOR-RESISTOR	2	
QR62001	UN5213	TRANSISTOR-RESISTOR	1	
R1	ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R40001	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R40002-05	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	4	
R40013-16	EXB24V103J	COMBI.R-R 10K	4	
R40017	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R40018	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R40029	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R40030	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R40031	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R40032,33	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R40036	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R41001,02	ERJ12YJ682	M.RESISTOR CH 1/2W 6.8K	2	
R41003,04	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	2	
R41005,06	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	2	
R41007	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R41008,09	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R41010	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R41011	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	1	
R41013-17	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	5	
R41018	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R41019	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R41020	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R41021,22	ERJ12YJ682	M.RESISTOR CH 1/2W 6.8K	2	
R41023,24	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R41025	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R41026	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R41028-32	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	5	
R41033	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R41034	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R41035	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R41036	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R41037	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R41038	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R41039,40	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R41041	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R41042	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R41043	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R41044	EXB24V473J	COMBI.R-R 47K	1	
R41045	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R41046	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R41047	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R41048	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R41049	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R42001,02	ERJ12YJ682	M.RESISTOR CH 1/2W 6.8K	2	
R42003,04	ERJ3RBD273	M.RESISTOR CH 1/16W 27K	2	
R42005,06	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	2	
R42007	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R42008,09	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R42010	ERJ3RBD181	M.RESISTOR CH 1/16W 180	1	
R42011	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	1	
R42013-17	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	5	
R42018	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R42019	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R42020	ERJ6RBD472	M.RESISTOR CH 1/10W 4.7K	1	
R42021,22	ERJ12YJ682	M.RESISTOR CH 1/2W 6.8K	2	
R42023,24	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	2	
R42025	ERJ3RBD561	M.RESISTOR CH 1/16W 560	1	
R42026	ERJ3RBD202	M.RESISTOR CH 1/16W 2K	1	
R42028-32	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	5	
R42033	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R42034	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R42035	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R42036	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R42037	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R42038	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R42039,40	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R42041	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R42042	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R42043	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R42044	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R42046	EXB24V473J	COMBI.R-R 47K	1	
R42047	ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R42048	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R42049	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R42050	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43001	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43002	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R43003	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R43004	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R43005	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R43006	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R43007	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43008	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R43009	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43010	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R43011	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R43012	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R43013,14	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R43015	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43016	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R43017	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R43018,19	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R43020	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R43021	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R43022	ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R43023	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R43024	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43026	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43027	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R43028	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R43029	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R43030	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R43031	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R43032	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43033	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R43034	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43035	ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R43036	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R43037	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R43038,39	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	2	
R43040	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43041	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R43042	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R43043,44	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R43045	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R43046	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R43047	ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R43048	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R43049	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43051,52	ERJ6RED164	M.RESISTOR CH 3W 160K	2	
R43053	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R43054	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R43055	VRE006608222	V.RESISTOR CH 1/10W 2.2K	1	D0YD222J0001
R43056	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R43057	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R43058,59	EXB24V473J	COMBI.R-R 47K	2	
R44001,02	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R44003-08	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	6	
R44009,10	ERJ3RBD331	M.RESISTOR CH 1/16W 330	2	
R44011,12	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	2	
R44013-18	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	6	
R44019,20	ERJ3RBD331	M.RESISTOR CH 1/16W 330	2	
R44021	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R44022	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R44023	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R44024	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R44025	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	1	
R44026	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R44029	EXB24V473J	COMBI.R-R 47K	1	
R45001	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R45002	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R45003	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R45004	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R45005	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R45006,07	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R45008-11	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	4	
R45012,13	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R45014,15	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	2	
R45016,17	ERJ14YJ330	M.RESISTOR CH 1/4W 33	2	
R45018	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R45019	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R45020	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R45021	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R45022	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R45023	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R45024	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R45025	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R45026	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R45027,28	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R45029-32	ERJ3RBD332	M.RESISTOR CH 1/16W 3.3K	4	
R45033,34	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	2	
R45035,36	ERJ3RBD393	M.RESISTOR CH 1/16W 39K	2	
R45037,38	ERJ14YJ330	M.RESISTOR CH 1/4W 33	2	
R45039	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R45040	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R45041	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R45042	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R45043,44	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R45046	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R45047	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R45049	ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R45050-52	ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	3	
R45053	EXB24V473J	COMBI.R-R 47K	1	
R45054	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R46001	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R46002	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R46003	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R46004	ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	ERJ3GEYJ390V
R46005	ERJ6GEYJ4R7	M.RESISTOR CH 1/10W 4.7	1	
R46006-09	ERJ6GEYJ150	M.RESISTOR CH 1/10W 15	4	
R46010	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R46011	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R46012	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R46013	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R46014	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R46015	ERJ6GEYJ4R7	M.RESISTOR CH 1/10W 4.7	1	
R46016-19	ERJ6GEYJ150	M.RESISTOR CH 1/10W 15	4	
R46020	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R46021,22	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	2	ERJ3GEYJ273V
R46023	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R46024	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R46025	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R46026	ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	ERJ3GEYJ390V
R46027	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	ERJ6GEYJ100V
R46028-31	ERJ6GEYJ150	M.RESISTOR CH 1/10W 15	4	
R46032	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R46033,34	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R46035,36	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	2	
R46037-39	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
R46040-42	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	3	
R46043	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R46044	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R46045	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R47001	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R47002	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R47003	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R47004	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R47006	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R47007	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R47009	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R47010,11	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R47013	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R47014	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R47015	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R47016	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R48002	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R48003	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R48004	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R48005,06	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R48007	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R48008	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R48009	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R48010	ERJ3RBD183	M.RESISTOR CH 1/16W 18K	1	
R48011	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R48012	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R48013	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R48014	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R48016	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R48017	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R48019	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R48020	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R48021	ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	ERJ3GEYJ273V
R48022	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R48024	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R48025	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R48026	EXB24V473J	COMBI.R-R 47K	1	
R48027	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R60001	EXB24V103J	COMBI.R-R 10K	1	
R60007	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R60008,09	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R60010,11	EXB24V103J	COMBI.R-R 10K	2	
R60012	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R60016,17	EXB24V103J	COMBI.R-R 10K	2	
R60018	EXB24V473J	COMBI.R-R 47K	1	
R60019	ERDS2TJ220	C.RESISTOR 1/4W 22	1	
R60022-24	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	3	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R60025	ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R60029	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R60030	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R60031	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R60032	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R60033	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R60034	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R60037-40	EXB24V473J	COMBI.R-R 47K	4	
R60042	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R60044,45	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R60048-50	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R60051-58	EXB24V473J	COMBI.R-R 47K	8	
R60059-61	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R61000,01	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R61002,03	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R61004	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R61005	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R61006	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R61011	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R61012,13	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R61014	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R61015	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R61016	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R61017	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R61018	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R61019-22	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	4	
R61023,24	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R61025	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R61026,27	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R61028	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	1	
R61029	ERJ6GEYG221	M.RESISTOR CH 1/10W 220	1	
R61030,31	ERJ6GEYG471	M.RESISTOR CH 1/10W 470	2	
R61034	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R61035-38	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
R62000	EXB24V473J	COMBI.R-R 47K	1	
R62001	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R62002	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R62003	EXB24V473J	COMBI.R-R 47K	1	
R62004,05	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R62008	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R62017,18	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R62019	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R62031	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R62033	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R62034	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R62035	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R62037,38	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R62039,40	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
RY41001,02	VSY2070	RELAY	2	
RY42001,02	VSY2070	RELAY	2	
SW40001	VSS0367-08B	SWITCH	1	
SW40002	VSS0367-06B	SWITCH	1	K0D161A00001
SW41001,02	VSS0342	SWITCH	2	K0D112B00056
SW42001,02	VSS0342	SWITCH	2	K0D112B00056
SW47001	VSS0367-04B	SWITCH	1	
SW61000-02	VSS0187	SWITCH	3	K0D113A00036
SW61003	VSS0186	SWITCH	1	K0D112A00047
SW61004	EVQQSB04B	SWITCH	1	
SW61005	EVQQS205K	SWITCH	1	
SW61006	VSS0187	SWITCH	1	K0D113A00036
SW61007	VSS0186	SWITCH	1	K0D112A00047
SW61008	EVQQSB04B	SWITCH	1	
SW61009	EVQQS205K	SWITCH	1	
SW61010-12	VSS0186	SWITCH	3	K0D112A00047
SW61013	VSS0187	SWITCH	1	K0D113A00036
SW61016	EVQQS205K	SWITCH	1	
SW61017,18	VSS0186	SWITCH	2	K0D112A00047
TG48001	EYF6CU	TEST POINT	1	
TG62001	EYF6CU	TEST POINT	1	
TP44001,02	EYF6CU	TEST POINT	2	
TP46001,02	EYF6CU	TEST POINT	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
TP48001-03	EYF6CU	TEST POINT	3	
TP61000-04	EYF6CU	TEST POINT	5	
TP62001-07	EYF6CU	TEST POINT	7	
U62001	CR2032	BATTERY	1	
VC62001	ECRJA020E12	TRIMMER 20P	1	ECRJA020E12X
VR43001	VRV0080	V.RESISTOR	1	D2BCA14A0001
VR43002	EVM7JGA00B14	V.RESISTOR 10K	1	
VR43003	VRV0080	V.RESISTOR	1	D2BCA14A0001
VR43004	EVM7JGA00B14	V.RESISTOR 10K	1	
VR43005,06	EVM7JGA00B53	V.RESISTOR 5K	2	EVM7JSX30B53
VR45001,02	EVM7JGA00B24	V.RESISTOR 20K	2	EVM7JSX30B24
VR46001,02	EVM7JGA00B14	V.RESISTOR 10K	2	
VR48001	EVM7JGA00B14	V.RESISTOR 10K	1	
VR48002	EVM7JGA00B24	V.RESISTOR 20K	1	EVM7JSX30B24
X60001	VSX1046	CRYSTAL OSCILLATOR	1	H2C8004A0001
X62001	VSX0602	CRYSTAL OSCILLATOR	1	H0J327200050
		MISCELLANEOUS		
	VGL0915	BACK LIGHT BASE	1	
	VMX1144	LED SPACER	1	
■ E18	VEP80B13B	REAR JACK P.C.BOARD	1	(RTL)
J1201,02	VJS3417	CONNECTOR (FEMALE)	2	K1AB103A0007
P1201	VJP1599T	CONNECTOR (MALE)	1	
R1202,03	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R1205	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R1208,09	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R1211	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
■ E19	VEP80B49A	POWER SW P.C.BOARD	1	(RTL)
P9601	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
SW9601	VST0076	SWITCH	1	K0E112G00013
■ E20	VEP80B15A	TOGGLE SW P.C.BOARD	1	(RTL)
P9201	VJP1601T	CONNECTOR	1	K1KA08A00120
SW9201	VST0326	SWITCH	1	K0E112G00009
SW9202-04	VST0327	SWITCH	3	K0E112G00010
		MISCELLANEOUS		
	VMP5579	SW HOLDER ANGLE	1	
	VJF0496	CLAMPER	2	
■ E21	VEP80B47A	MONITOR SW P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C9101-04	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	4	ECUV1E104KBN
D9101	MA142WA	DIODE	1	
D9102-04	MA8068-MH	DIODE	3	
P9101	VJS2848D015	CONNECTOR (FEMALE)	1	K1MN15B00017
P9102	VJP3125B002	CONNECTOR (MALE)	1	K1KA02B00111
Q9101	XN1213	TRANSISTOR-RESISTOR	1	
Q9102	XN4601	TRANSISTOR-RESISTOR	1	
Q9103	2SB1219A-R	TRANSISTOR	1	
QR9101,02	UN5211	TRANSISTOR-RESISTOR	2	
QR9103	UN5111	TRANSISTOR-RESISTOR	1	
QR9104	UN5211	TRANSISTOR-RESISTOR	1	
R9101	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R9102-05	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	4	
R9106	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R9107	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R9108,09	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R9110	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
SW9101	EVQQS205K	SWITCH	1	
VR9101,02	VRV0099A	V.RESISTOR	2	D2BBC14Y0002
		MISCELLANEOUS		
	VMG0945	VR SHIELD RUBBER	1	
■ E22	VEP80B50A	SYNCHRO SW P.C.BOARD	1	(RTL)
P9401	VJP1596T	CONNECTOR (MALE)	1	
SW9401,02	EVQQSB04B	SWITCH	2	
■ E23	VEP80B51A	USER SW P.C.BOARD	1	(RTL)
P9301	VJP1607T	CONNECTOR (MALE)	1	
SW9301,02	EVQQSB04B	SWITCH	2	
■ E24	VEP80B53A	MENU SW P.C.BOARD	1	(RTL)
P9501	VJP1607T	CONNECTOR (MALE)	1	
SW9501	EVQQSB04B	SWITCH	1	
■ E25	VEP20854A	CCD SENSOR P.C.BOARD	1	(RTL)
C1-C3	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C101	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C102	EEAFC0J121	E.CAPACITOR 6.3V 120U	1	
C103	VCEA0JSS221	E.CAPACITOR 6.3V 220U	1	
C104,05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C106,07	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C108	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C109	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C110-13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C114-18	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	5	
C119	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C121	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C122,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C124	EEUFC1E470	E.CAPACITOR 25V 47U	1	
C125	ECSF1VM105	T.CAPACITOR CH 35V 1U	1	
C126,27	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C201	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C202	EEAFC0J121	E.CAPACITOR 6.3V 120U	1	
C203	VCEA0JSS221	E.CAPACITOR 6.3V 220U	1	
C204,05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C206,07	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C208	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C209	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C210-13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C214-18	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	5	
C219	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C221	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C222,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C224	EEUFC1E470	E.CAPACITOR 25V 47U	1	
C225	ECSF1VM105	T.CAPACITOR CH 35V 1U	1	
C226,27	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C301	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C302	EEAFC0J121	E.CAPACITOR 6.3V 120U	1	
C303	VCEA0JSS221	E.CAPACITOR 6.3V 220U	1	
C304,05	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C306,07	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	2	
C308	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C309	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	1	
C310-13	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C314-18	ECST1CY685Z	T.CAPACITOR CH 16V 6.8U	5	
C319	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C321	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	1	
C322,23	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C324	EEUFC1E470	E.CAPACITOR 25V 47U	1	
C325	ECSF1VM105	T.CAPACITOR CH 35V 1U	1	
C326-28	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C329	ECUX1E105KBM	C.CAPACITOR CH 25V 1U	1	
D101-04	MA142K	DIODE	4	
D201-04	MA142K	DIODE	4	
D301-04	MA142K	DIODE	4	
FL101	NFM41P11C204	FILTER	1	
FL102,03	VLF1441P207	FILTER	2	
FL201	NFM41P11C204	FILTER	1	
FL202,03	VLF1441P207	FILTER	2	
FL301	NFM41P11C204	FILTER	1	
FL302,03	VLF1441P207	FILTER	2	
IC1-C3	TC7SZ08F	IC	3	
IC102	TC7SZ08F	IC	1	
IC103,04	TC7SZ00F	IC	2	
IC105	TC7SZ08F	IC	1	
IC202	TC7SZ08F	IC	1	
IC203,04	TC7SZ00F	IC	2	
IC205	TC7SZ08F	IC	1	
IC302	TC7SZ08F	IC	1	
IC303,04	TC7SZ00F	IC	2	
IC305	TC7SZ08F	IC	1	
L101	VLQ0924J10N	COIL 1UH	1	
L102	VLQ0924J33N	COIL 33UH	1	
L201	VLQ0924J10N	COIL 1UH	1	
L202	VLQ0924J33N	COIL 33UH	1	
L301	VLQ0924J10N	COIL 1UH	1	
L302	VLQ0924J33N	COIL 33UH	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P1	VJS3806C050	CONNECTOR (FEMALE)	1	
P2	VJS2907D010	CONNECTOR (FEMALE)	1	
Q101	2SC3356-B	TRANSISTOR	1	
Q102,03	2SA1978-B	TRANSISTOR	2	
Q104	2SC3356-B	TRANSISTOR	1	
Q105,06	2SA1978-B	TRANSISTOR	2	
Q107	2SC4176	TRANSISTOR	1	B1ABDB000014
Q201	2SC3356-B	TRANSISTOR	1	
Q202,03	2SA1978-B	TRANSISTOR	2	
Q204	2SC3356-B	TRANSISTOR	1	
Q205,06	2SA1978-B	TRANSISTOR	2	
Q207	2SC4176	TRANSISTOR	1	B1ABDB000014
Q301	2SC3356-B	TRANSISTOR	1	
Q302,03	2SA1978-B	TRANSISTOR	2	
Q304	2SC3356-B	TRANSISTOR	1	
Q305,06	2SA1978-B	TRANSISTOR	2	
Q307	2SC4176	TRANSISTOR	1	B1ABDB000014
R1	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R3	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R5,R6	ERJ3RBD201	M.RESISTOR CH 1/16W 200	2	
R9-17	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	9	ERJ6GEY0R00V
R104,05	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R106-09	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	4	
R112	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R113	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R114	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R115	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R116	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R204,05	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R206-09	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	4	
R212	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R213	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R214	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R215	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R216	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R304,05	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R306-09	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	4	
R312	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R313	ERJ3RBD101	M.RESISTOR CH 1/16W 100	1	
R314	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R315	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R316	ERJ3RED510	M.RESISTOR CH 1/16W 51	1	
R318	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
		MISCELLANEOUS		
	VMS6135	P.C.BOARD POST (26SP-6)	2	
	XSB26+3	SCREW	2	
	VEE0J47	P.C.BOARD INT CABLE	3	
■ E26	VEP00W08B	HEAD PHONE P.C.BOARD	1	(RTL)
C9201,02	ECKF1H102ZF	C.CAPACITOR 50V 1000P	2	
J9201	VJJ0522	JACK	1	K2HC103B0082
L1,L2	VLP0147	COIL	2	
P9201	VJP1608T	CONNECTOR (MALE)	1	
■ E27	VEP80B75A	EXT DC P.C.BOARD	1	(RTL)
D101	S3V60	DIODE	1	B0EAKR000020

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P101	VJP3429	CONNECTOR (MALE)	1	K1AA104H0024
		MISCELLANEOUS		
	VEE0K14	EXT DC INF CABLE	1	
	VEE0L74	EXT DC CABLE	1	
■ E28	VEP80B16B	FRONT TOGGLE P.C.BOARD	1	(RTL)
P1	VJS2949B015	CONNECTOR (FEMALE)	1	K1MN15B00016
P2	VJP4395C005	CONNECTOR (MALE)	1	
P3	VJP4395D007	CONNECTOR (MALE)	1	
R5-R8	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	4	ERJ3GEY0R00V
SW1	VST0194	SWITCH	1	K0E132A00002
SW2	VST0195	SWITCH	1	K0E132A00003
		MISCELLANEOUS		
	VMP4839	SW HOLDER ANGLE	1	
■ E29	VEP80B52A	JOG MENU P.C.BOARD	1	(RTL)
C1	ECST1CY225Z	T.CAPACITOR CH 16V 2.2U	1	
C2	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C3,C4	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	2	ECUV1H103KBV
C5	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
D1-D3	MA147	DIODE	3	
P1	VJP4395D007	CONNECTOR (MALE)	1	
R1	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R2	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R3	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R4	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R5	ERJ3RBD151	M.RESISTOR CH 1/16W 150	1	
SW1	EVQB1D10809B	SWITCH	1	
SW2	VST0335	SWITCH	1	
■ E30	VEP80B45A	REAR SW P.C.BOARD	1	(RTL)
SW1101,02	VSS0380	SWITCH	2	K0D123B00024
■ E31	VEP84353A	CUE P.C.BOARD	1	(RTL)
C1001	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C1002,03	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C1004	ECST1CX106Z	T.CAPACITOR CH 16V 10U	1	
C1005	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1006	ECUX1H223KBN	C.CAPACITOR CH 50V 0.22U	1	
C1007	ECHS1H102JZ	P.CAPACITOR 50V 1000P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C1008	EEVHB1C470	E.CAPACITOR 16V 47U	1	
C1009	VCF2JAB332J	P.CAPACITOR 630V 3300P	1	
C1010	ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C1011	ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C1012	ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1013,14	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C1015	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C1016	ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	ECUV1H222KBV
C1017	VCC0030	C.CAPACITOR	1	
C1018	ECUM1E473KBN	C.CAPACITOR CH 25V 0.047U	1	
C1019	ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C1020	EEVHP0J100	E.CAPACITOR 6.3V 10U	1	
C1021	ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C1022	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C1023	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C1024	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
⚠ CP1001	VSQ0563	CIRCUIT BREAKER	1	K5JDJB000012
D1001	MA142K	DIODE	1	
D1002	RK34	DIODE	1	B0JANE000005
FL1002	EIR7QF012B	TRANSFORMER	1	
IC1001	NJM4558M-D	IC	1	
L1001	VLQ0423J472	COIL 4700UH	1	
L1002	VLP0320	COIL	1	
L1003,04	VLF1151A132	COIL	2	
L1005	VLQ0319K100	COIL 10UH	1	G1C100K00023
L1006	VLP0320	COIL	1	
P1001	VJS2907B008	CONNECTOR (FEMALE)	1	
P1002	VJP4395D002	CONNECTOR (MALE)	1	
P1003	VJS2907D012	CONNECTOR (FEMALE)	1	
P1004	VJP4395D005	CONNECTOR (MALE)	1	
P1005	VJP2824B002	CONNECTOR (MALE)	1	K1KA02B00007
P1006	VJP2824A003	CONNECTOR (MALE) 3P	1	K1KA03A00008
P1007	VJP3172D002	CONNECTOR (MALE)	1	K1KA02B00051
P1008	VJP3518D006	CONNECTOR (MALE)	1	
P1009	VJP3125B009	CONNECTOR (MALE)	1	K1KA09B00055
Q1001	2SB779-R	TRANSISTOR	1	
Q1002	2SD1819A-R	TRANSISTOR	1	
Q1003	2SD874-R	TRANSISTOR	1	
Q1004	2SD1979	TRANSISTOR	1	
Q1005	2SB1220-R	TRANSISTOR	1	
Q1006,07	2SD1821-R	TRANSISTOR	2	
Q1008,09	2SD1979	TRANSISTOR	2	
Q1010-12	2SJ280L	TRANSISTOR	3	B1DGJG000002
QR1001-06	UN5113	TRANSISTOR-RESISTOR	6	
R1001	ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	ERJ6GEY0R00V
R1002	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1003	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1004	ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R1005	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	1	
R1006	ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R1007	ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	ERJ3GEYJ390V
R1008	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1010	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1011	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1012	ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R1014	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R1015	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1016	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R1017	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	1	
R1018	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R1019	ERJ3GEYG822	M.RESISTOR CH 1/16W 8.2K	1	
R1020	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R1021,22	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R1023	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R1024	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R1025	ERJ8GEYJ1R0	M.RESISTOR CH 1/8W 1	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1026	ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R1027	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R1028	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1029	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R1030,31	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
⚠ R1033	VRT01512R2	THERMISTOR	1	D4DA92R20001
R1034	ERJ6GEYJ1R0	M.RESISTOR CH 1/10W 1	1	
R1035	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	1	
R1036	ERJ6GEYG151	M.RESISTOR CH 1/10W 150	1	
R1037,38	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
T1001	VLT0729	TRANSFORMER	1	
TG1001	EYF6CU	TEST POINT	1	
TP1001-04	EYF6CU	TEST POINT	4	
VR1001	VRV0161B503	V.RESISTOR 50K	1	
VR1002	VRV0161B103	V.RESISTOR 10K	1	
■ E32	VEP86149A	OPERATE P.C.BOARD	1	(RTL)
D6001-03	BR1102W-1	DIODE	3	
P501	VJP3125B010	CONNECTOR (MALE)	1	K1KA10B00136
SW6001-05	EVQPHL03T	SWITCH	5	
		MISCELLANEOUS		
	VEE9417	P.C.BOARD INT CABLE	1	
■ E33	VEP80B17A	FRONT MIC P.C.BOARD	1	(RTL)
C9701-03	ECUV1H470JCV	C.CAPACITOR CH 50V 47P	3	
J9701	VJS3417	CONNECTOR (FEMALE)	1	K1AB103A0007
P9701	VJP1610T	CONNECTOR (MALE)	1	
R9702-04	VLF1315A102	FILTER	3	J0JHC0000015
■ E34	VEP23532A	SD CARD P.C.BOARD	1	(RTL)
C1	ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C2	ECUX1C105KBM	C.CAPACITOR CH 16V 1U	1	
C3	ECST1AY106	T.CAPACITOR CH 10V 10U	1	
C4	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C5,C6	ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	2	
C7,C8	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	2	ECUV1E104KBN
D1-D9	MA147	DIODE	9	
D11	LNJ310M6URA	DIODE	1	
IC1	TLCX257FT	IC	1	
IC2	TC7S04FU	IC	1	
IC3-C5	TVSA0161	IC	3	C0JBAA000099
L1	VLP0353	COIL	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
P1	VJP4064P020	CONNECTOR (MALE)	1	
P2	K1NA09E00002	CONNECTOR	1	
Q1	2SB956-R	TRANSISTOR	1	
R4	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R5	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R6	ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R7	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R8	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R9,10	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R11,12	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	ERJ3GEYJ103V
R13	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R14	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R15	ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R16	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R18,19	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
TG1	EYF6CU	TEST POINT	1	
■ E35	VEP20804A	INT CONNECT P.C.BOARD	1	(RTL)
C1	EEUFC1A152	E.CAPACITOR 10V 1500P	1	
P1,P2	VJP4064Q160	CONNECTOR (MALE)	2	K1KBG0B00002
R1	ERDS2TJ3R3	C.RESISTOR 1/4W 3.3	1	
■ E36	VEP83462B	VIDEO MAIN P.C.BOARD	1	(RTL)
■	VEP81225A	VIDEO MAIN SUB P.C.BOARD	1	(RTL)FOR VEP83462B
C1-C6	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C8	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C10-17	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	8	
C20	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C21	F1L1C1060020	C.CAPACITOR CH 16V 10U	1	
C22	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C30	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C70,71	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C74-79	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	6	
C80	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C81	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C82	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C83	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C84	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C85	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C89,90	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C91	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C92,93	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C94	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C99	ECUX1H030CCV	C.CAPACITOR CH 50V 3P	1	
C100,01	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	2	
C102	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C103	ECUX1H010CCV	C.CAPACITOR CH 50V 1P	1	
C104	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C105	ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C107-10	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	
C150-65	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	16	
C166	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C170,71	ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C172	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C173	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C174-76	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C177	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C178-81	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	4	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C182	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C183	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C190	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C200-07	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	8	
C250-57	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	8	
C260,61	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	2	
C321-29	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C330	ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C350-61	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	12	
C363-71	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	9	
C400	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C401	F1K0J1060002	C.CAPACITOR CH6.3V 10U	1	
C403	ECST1AC476Z	T.CAPACITOR CH 10V 47U	1	
C404	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C405	ECST1AC476Z	T.CAPACITOR CH 10V 47U	1	
C406	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C407	ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C408	VCK0150	C.CAPACITOR	1	
C409	ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C411	ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C412	ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	ECUV1H103KBV
C413	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C450-55	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	6	
C457,58	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C460,61	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C465,66	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C467	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C470,71	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C500	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C502	F1L0J2260002	C.CAPACITOR CH6.3V 22U	1	
C503,04	F1K0J1060002	C.CAPACITOR CH6.3V 10U	2	
C507	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C509-11	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	3	
C514	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	1	
C516-20	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	5	
C550	ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C551	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C552,53	ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	F1H1H102A009
C554	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C555	ECUX1A105KBN	C.CAPACITOR CH 10V 1U	1	
C556	ECST1AY475	T.CAPACITOR CH 10V 4.7U	1	
C557	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C558,59	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C560	ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C561	ECST1AY475	T.CAPACITOR CH 10V 4.7U	1	
C563	VCEA1DSP680	E.CAPACITOR 20V 68U	1	
C564,65	ECUX1H102JCV	C.CAPACITOR CH 50V 1000P	2	
C566	VCEA0JSP151	E.CAPACITOR 6.3V 150U	1	
C567	ECUX1C104KBV	C.CAPACITOR CH 16V 0.1U	1	
C568	VCEA0GSP331	E.CAPACITOR 4V 330U	1	
C569,70	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C572,73	ECST1AY106Z	T.CAPACITOR CH 10V 10U	2	
C574,75	ECUX1E104ZFV	C.CAPACITOR CH 25V 0.1U	2	
C581-83	F1K1C475A043	C.CAPACITOR CH 16V 4.7U	3	
D1	MA142K	DIODE	1	
D1	SFPB-76V	DIODE	1	FOR VEP81225A
D150	MA153	DIODE	1	
D550	MA142WK	DIODE	1	
D552,53	MA8036-MH	DIODE	2	
FL500	VLF1016A223	FILTER	1	
FL502,03	VLF1016A223	FILTER	2	
IC1	DS90CR288MTD	IC	1	
IC2	C1AB00001228	IC	1	
IC3	UPD65943G050	IC	1	
IC4	TLCX08F	IC	1	
IC8	TLCX08F	IC	1	
IC11	XC62FP3502P	IC	1	
IC70,71	CXD2315Q	IC	2	C0FBBF000006
IC73,74	AD8055AR	IC	2	
IC76	AD8014AR	IC	1	
IC77	TLCX16244A	IC	1	
IC78	TLCX245FT	IC	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
IC80	TC7W125FU	IC	1	
IC150	D4564163A10B	IC	1	
IC151	MB87J1460	IC	1	
IC152	D4564163A10B	IC	1	
IC153	TC7W125FU	IC	1	
IC154	NJM082BM	IC	1	C0ABEB000017
IC200	MN673797A	IC	1	
IC250	MN673797A	IC	1	
IC321	EPM7256AE141	IC	1	
IC350	D4564163A10B	IC	1	
IC351	MN7F008B4C	IC	1	
IC400	XC62FP3202P	IC	1	
IC401	UPC2384GA	IC	1	
IC450,51	TC7SH08FU	IC	2	
IC452	TLCX08F	IC	1	
IC453	TLCX157F	IC	1	
IC455	PLL1700E	IC	1	
IC456	TC7SH08FU	IC	1	
IC457	TVHC157FT	IC	1	
IC458	TC7SH08FU	IC	1	
IC459,60	TVHC125FT	IC	2	
IC465	TC7W241FU	IC	1	
IC470	CSP5925Q	IC	1	
IC471	TC7SH32FU	IC	1	
IC550	LTC1628IG	IC	1	
IC551	NJM2904V	IC	1	
ID321	VVVSI3551A	SOFTWARE	1	
L1	J0JKC0000009	FILTER	1	FOR VEP81225A
L2-L4	VLF1147A680	FILTER	3	
L6	VLF1147A680	FILTER	1	
L8	VLP0155	COIL	1	
L70	VLQ0319K101	COIL 100UH	1	G1C101K00022
L150	VLF1147A121	FILTER	1	
L151	VLP0155	COIL	1	
L320,21	VLF1147A241	FILTER	2	
L400	VLQ0464K6R8	COIL 6.8UH	1	G1C6R8K00007
L401	VLQ0319K101	COIL 100UH	1	G1C101K00022
L402	ELJNA1R8JF	COIL 1.8UH	1	
L450,51	VLP0155	COIL	2	
L453	VLF1147A121	FILTER	1	
L454,55	VLP0155	COIL	2	
L457	VLP0155	COIL	1	
L458-60	VLF1147A241	FILTER	3	
L463,64	VLP0155	COIL	2	
L465-69	VLF1147A241	FILTER	5	
L470	VLF1147A121	FILTER	1	
L471	VLP0155	COIL	1	
L472	VLF1147A121	FILTER	1	
L504	VLF1151A132	COIL	1	
L550	VLQ0916N2R5	COIL 2.5UH	1	
L551	VLQ0650M270	COIL 27UH	1	
L552	VLQ0916N5R3	COIL 5.3UH	1	
P1	VJP4395D015	CONNECTOR (MALE)	1	
P70	VJP4064K100B	CONNECTOR (MALE)	1	
P71	VJP4395D002	CONNECTOR (MALE)	1	
P320	VJP3125B008	CONNECTOR (MALE)	1	
P500	VJP3978C100C	CONNECTOR (MALE)	1	
P501	VJP3810E120	CONNECTOR (MALE)	1	
P502	VJS3801B050	CONNECTOR (FEMALE)	1	
P503	VJP4395D015	CONNECTOR (MALE)	1	
Q1	TM3115	TRANSISTOR	1	B1DFGD000010 FOR VEP81225A
Q550	TM3115	TRANSISTOR	1	B1DFGD000010
Q552	2SB956-R	TRANSISTOR	1	
Q553	2SD1816-T	TRANSISTOR	1	
Q554	HAT1033T	TRANSISTOR	1	
Q555	HAT2042T	TRANSISTOR	1	
Q556	HAT1033T	TRANSISTOR	1	
QR550	UN5211	TRANSISTOR-RESISTOR	1	
QR552	UN5111	TRANSISTOR-RESISTOR	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R7	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R8	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R9-12	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R13	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R14,15	EXB24V473J	COMBI.R-R 47K	2	
R16	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R18	EXB24V473J	COMBI.R-R 47K	1	
R19-21	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R24	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R25	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R26	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R76	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R77	EXB24V473J	COMBI.R-R 47K	1	
R79,80	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	2	
R81	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R82	ERJ6RED564	M.RESISTOR CH 1/10W 560K	1	
R83	ERJ3RBD201	M.RESISTOR CH 1/16W 200	1	
R84	ERJ6RED564	M.RESISTOR CH 1/10W 560K	1	
R85	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R86	ERJ3RBD182	M.RESISTOR CH 1/16W 1.8K	1	
R87	ERJ3RBD303	M.RESISTOR CH 1/16W 30K	1	
R88	ERJ3RBD472	M.RESISTOR CH 1/16W 4.7K	1	
R89,90	ERJ3RBD153	M.RESISTOR CH 1/16W 15K	2	
R94	ERJ3RBD272	M.RESISTOR CH 1/16W 2.7K	1	
R97,98	ERJ3RBD223	M.RESISTOR CH 1/16W 22K	2	
R99	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	1	
R100	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	1	
R101	ERJ3RBD123	M.RESISTOR CH 1/16W 12K	1	
R102	ERJ3RBD333	M.RESISTOR CH 1/16W 33K	1	
R103	ERJ3RBD562	M.RESISTOR CH 1/16W 5.6K	1	
R104,05	ERJ3RBD222	M.RESISTOR CH 1/16W 2.2K	2	
R114	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R116	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R118,19	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	2	
R120	ERJ3RBD563	M.RESISTOR CH 1/16W 56K	1	
R122	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R125	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R128	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R130,31	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R150-61	EXB24V473J	COMBI.R-R 47K	12	
R162-64	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R165,66	EXB24V473J	COMBI.R-R 47K	2	
R168,69	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	2	
R170,71	EXB24V473J	COMBI.R-R 47K	2	
R172	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R173	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R174	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R175	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R176-79	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	4	ERJ3GEYJ103V
R180	ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R181	EXB24V473J	COMBI.R-R 47K	1	
R182	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R183,84	EXB24V101J	COMBI.R-R 100	2	
R185,86	ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	2	
R187	ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R200	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R201	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R203	EXB24V473J	COMBI.R-R 47K	1	
R204	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R209-14	EXB24V473J	COMBI.R-R 47K	6	
R217	EXB24V473J	COMBI.R-R 47K	1	
R220-22	EXB24V473J	COMBI.R-R 47K	3	
R223	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R228	EXB24V473J	COMBI.R-R 47K	1	
R229	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R230-33	EXB24V103J	COMBI.R-R 10K	4	
R250	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R255-59	EXB24V473J	COMBI.R-R 47K	5	
R261	EXB24V473J	COMBI.R-R 47K	1	
R264	EXB24V473J	COMBI.R-R 47K	1	
R266-68	EXB24V473J	COMBI.R-R 47K	3	
R273	EXB24V473J	COMBI.R-R 47K	1	
R274,75	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R276-79	EXB24V103J	COMBI.R-R 10K	4	
R320	EXB24V473J	COMBI.R-R 47K	1	
R323,24	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R328-31	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	4	
R332	EXB24V473J	COMBI.R-R 47K	1	
R337	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R340,41	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R358	EXB24V473J	COMBI.R-R 47K	1	
R359	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R360	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R361	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R362	EXB24V332J	COMBI.R-R 3.3K	1	
R365	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R366	EXB24V100J	COMBI.R-R 10	1	
R368,69	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	2	
R371,72	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R376	EXB24V473J	COMBI.R-R 47K	1	
R380	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R382	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R383	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R384	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R400	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R401	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R402,03	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2	
R404	ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R405	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R406	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R450	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R451	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R458	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R460	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R463-65	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R466	ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R467,68	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R481	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	1	
R491	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R500	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R501-03	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	3	
R505	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R508	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R509	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R511	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R550	ERJ3RBD203	M.RESISTOR CH 1/16W 20K	1	
R553	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R554	ERJ3RBD243	M.RESISTOR CH 1/16W 24K	1	
R555	ERJ3GEYJ202	M.RESISTOR CH 1/16W 2K	1	
R557	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R558	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R559	ERJ3RBD752	M.RESISTOR CH 1/16W 7.5K	1	
R560	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R561	ERJ3RBD392	M.RESISTOR CH 1/16W 3.9K	1	
R562	ERJ3RBD102	M.RESISTOR CH 1/16W 1K	1	
R563	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	ERJ6GEYJ100V
R564,65	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	2	
R566,67	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	2	
R568	VRE0221H33M	M.RESISTOR	1	
R569,70	ERJ3RBD152	M.RESISTOR CH 1/16W 1.5K	2	
R571,72	ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	2	
R573	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R574	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R575	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R576,77	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R578	ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R585	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
TG500,01	EYF6CU	TEST POINT	2	
TP72	EYF6CU	TEST POINT	1	
TP201,02	EYF6CU	TEST POINT	2	
TP320	EYF6CU	TEST POINT	1	
X150	VSX1084	CRYSTAL OSCILLATOR	1	
		MISCELLANEOUS		

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
	VMX3059	SPACER	1	
	XYN26+K5	SCREW	5	
	VMS5504	POST	5	
■ E37	VEP83460B	HD SDI TX P.C.BOARD	1	(RTL)
C1	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C2	ECST0JC686	T.CAPACITOR CH6.3V 68U	1	
C3	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C4	ECST0JC686	T.CAPACITOR CH6.3V 68U	1	
C5	ECST1CC336Z	T.CAPACITOR CH 16V 33U	1	
C6	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C7	ECST1CC336Z	T.CAPACITOR CH 16V 33U	1	
C8-16	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	9	ECUV1E104KBN
C17,18	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	2	
C19,20	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	2	ECUV1E104KBN
C21	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	1	
C22	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C23	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	1	
C24	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C25	ECUX1H102JV	C.CAPACITOR CH 50V 1000P	1	
C26	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C27	ECST1CD336Z	T.CAPACITOR CH 16V 33U	1	
C28,29	ECST0JC686	T.CAPACITOR CH6.3V 68U	2	
C30	ECST1CD336Z	T.CAPACITOR CH 16V 33U	1	
C31	ECST0JC686	T.CAPACITOR CH6.3V 68U	1	
C32	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C80-84	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	5	ECUV1E104KBN
C85	ECST0JC686	T.CAPACITOR CH6.3V 68U	1	
C86-88	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	3	ECUV1E104KBN
C101-05	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	5	ECUV1E104KBN
C106,07	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	2	
C108	ECST1CD336Z	T.CAPACITOR CH 16V 33U	1	
C109	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C110	ECUX1E104KBN	C.CAPACITOR CH 25V 0.1U	1	ECUV1E104KBN
C111-13	ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	3	
C114	ECST0JC686	T.CAPACITOR CH6.3V 68U	1	
D80	MA142K	DIODE	1	
IC1	C9ZB00000361	IC	1	
IC2	LVTH244APW	IC	1	C0JBBZ000174
IC3	FMM4039XC	IC	1	
IC10	NJM062V	IC	1	
IC13	MC10EL16D	IC	1	C0JBZZ000015
IC14	UPC2726T	IC	1	
J1-J5	VJP4131	CONNECTOR (MALE)	5	K1QZB1AD0003
J6	VJS4064K100E	CONNECTOR (FEMALE)	1	K1KAA0A00055
L1	VLQ0441K4R7	COIL 4.7UH	1	
L2,L3	VLP0183	COIL	2	J0JKC0000007
L4	VLQ0441K4R7	COIL 4.7UH	1	
L10	VLQ07823N3	COIL	1	G1C3N3ZA0001
L101-04	VLQ07823N3	COIL	4	G1C3N3ZA0001
Q1,Q2	2SC5185	TRANSISTOR	2	
Q3-Q5	2SC3583	TRANSISTOR	3	
Q6,Q7	2SC5185	TRANSISTOR	2	
R1-45	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	45	
R46-50	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	5	ERJ3GEY0R00V
R51-57	ERJ3GEYJ220	M.RESISTOR CH 1/16W 22	7	
R58	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R60	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	ERJ3GEYJ103V
R61	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	ERJ3GEY0R00V
R63-65	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	3	
R66,67	ERJ3GEYJ510	M.RESISTOR CH 1/16W 51	2	
R68	ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R70	ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R71	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R80	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R81	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R82,83	ERJ3GEYG472	M.RESISTOR CH 1/16W 4.7K	2	
R84	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R85,86	ERJ3GEYJ510	M.RESISTOR CH 1/16W 51	2	
R87	ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R88	ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R89	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R91	ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R101,02	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	2	
R103,04	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	2	
R105,06	ERJ6GEYG151	M.RESISTOR CH 1/10W 150	2	
R107	ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R108	ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R109	ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R110	ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R111	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R112-14	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	3	
R115	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R116	ERJ3GEYJ180	M.RESISTOR CH 1/16W 18	1	
R117	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R118,19	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	2	
R120	ERJ3GEYJ180	M.RESISTOR CH 1/16W 18	1	
R121	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R122	ERJ6RED270	M.RESISTOR CH 1/10W 27	1	
R123	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R124	ERJ6RED270	M.RESISTOR CH 1/10W 27	1	
R125	ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R126	ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R127	ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R128	ERJ3GEYJ820	M.RESISTOR CH 1/16W 82	1	
R129	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R130-32	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	3	
R133	ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R134	ERJ3GEYJ180	M.RESISTOR CH 1/16W 18	1	
R135	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R136,37	ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	2	
R138	ERJ3GEYJ180	M.RESISTOR CH 1/16W 18	1	
R139	ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R141	ERJ6RBD751	M.RESISTOR CH 1/10W 750	1	
R142	ERJ6RBD151	M.RESISTOR CH 1/10W 150	1	
R143	ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R144	ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R145	VRE006622152	M.RESISTOR CH 1/10W 1.5K	1	D0YD152JA008
R146,47	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	ERJ3GEY0R00V
R155	ERJ6GEYJ3R3	M.RESISTOR CH 1/10W 3.3	1	
TP9	EYF6CU	TEST POINT	1	
VR2	EVM7JGA00B13	V.RESISTOR 1K	1	
X1	VSX1057	CRYSTAL OSCILLATOR	1	H4G1487B0001
■ E38	VEP80A74A	BACK TALLY P.C.BOARD	1	(RTL)
D1	TLRA116	DIODE	1	
SW1	VST0131	SWITCH	1	K0E122A00016
		MISCELLANEOUS		
	VEE9418	CABLE	1	
	VMX2126	LED SPACER	1	
■ E39	VEP80B73A	SIDE BNC P.C.BOARD	1	(RTL)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R1-R3	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	3	ERJ3GEY0R00V
		MISCELLANEOUS		
	VEE0L71	SIDE (2) CABLE	1	
■ E40	VEP80B74A	SDI BNC P.C.BOARD	1	(RTL)
P202	VJP4131	CONNECTOR (MALE)	1	K1QZB1AD0003
R201	VLF1315A102	FILTER	1	J0JHC0000015
		MISCELLANEOUS		
	VEE0L72	SDI CABLE	1	

SECTION 1

OPERATING INSTRUCTIONS

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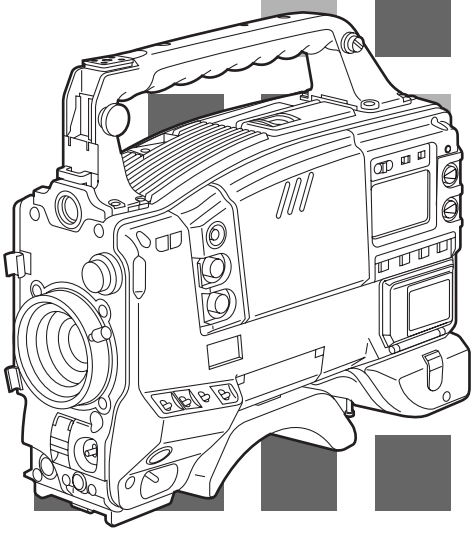
Panasonic

DVCPRO HD

Camera/VTR

AJ-HDC27AP

Operating Instructions



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

WARNING:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

FCC Note:

This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Replace battery with part No. CR2032 only.
Use of another battery may present a risk of fire or explosion.
Caution—Battery may explode if mistreated.
Do not recharge, disassemble or dispose of in fire.



ATTENTION:

The product you have purchased is powered by a nickel cadmium battery which is recyclable. At the end of it's useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

indicates safety information.

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Introduction

The AJ-HDC27A integrates two units: 1) a high-definition (HD) color video camera featuring an IT-CCD equipped with a 1 million pixel on-chip lens that supports the full spectrum of HD TV (720P/59.94 Hz), and 2) a DVCPRO HD format VTR that incorporates the latest compression technology.
Featuring a 100 Mbps recording rate for the VTR as well, this unit is capable of recording images with an extremely high picture quality to achieve the highest performance and most sophisticated functions as an integrated camera/VTR for electronic field production (EFP) applications.

Furthermore, it is compact and lightweight, has low power consumption, and excels in achieving a high level of picture quality, sensitivity, and mobility, and is extremely dust-proof and moisture-proof. These are all attributes which enable the unit to be used for electronic news gathering (ENG) applications as well.
Since digital signal processing is provided in both the camera unit and VTR unit, the picture quality is further improved while the unit's stability is also enhanced.
Small multimedia cards meeting global standards can be used for the camera and VTR setting data as part of a system which can accomplish data management.

Features

Features of the camera unit

The camera unit of the AJ-HDC27A has the following features.

- High sensitivity: 2000 lux (F10)
- High signal-to-noise ratio: 54 dB (standard)
- Low smear
- Low flare

Digital signal processing

Analog signals are converted into digital signals through 10-bit A/D conversion at a sampling frequency of 74.1758 MHz. This processing not only enhances the picture quality, stability and reliability but it also enables the viewfinder screen displays and many of the adjustment and setup items to be configured in a menu-driven format.

Customized setting menus

The status displays, messages and marker displays are controlled using setting menus which are displayed on the viewfinder screen. The user can select whether or not to display certain items and under what conditions they are to be displayed to suit the user's convenience. For instance, the ON/OFF settings can be selected for nine different statuses for the "!" lamp display which tells the user that the unit is experiencing some kind of problem.
The menus are also used to select settings and functions and execute memory card operations.

Setup card

Up to eight sets of setting menu data can be stored on SD card (Secure Digital Memory Card) and small multimedia cards (VW-MMT8) serving as setup cards. Organizing this data by set or by shooting conditions for storage is useful in reproducing the same setup states with ease and in ensuring consistency in the setup states from one set of data to the next.

High-performance electronic shutter

Use of the self-contained electronic shutter results in images with minimal shake even when the subject is fast-moving. Any of the following special modes can also be selected.

- Synchro scan mode
  This is ideal for shooting the monitor screens of a personal computer or work station.
  (60.0 Hz to 251.3 Hz)
  Images with minimal horizontal stripe noise can be obtained in this mode.

Features of the camera unit

Wide-ranging video gain selection
A value ranging from –6 dB to +30 dB can be selected for the gain using the setting menu and GAIN switch. Even when the gain is increased for shooting in dark locations, images with minimal noise can be obtained because of the high signal-to-noise ratio. The super gain function can be allocated to the USER button, and 30 dB can be selected using this button.

Automatic adjustment of black balance and white balance, and memory function
The black balance and white balance can be adjusted automatically by means of some simple switch operations.
The adjustment settings remain stored in the memory even after the power has been turned off so that the need for the balance to be re-adjusted each time the power is turned on is obviated.
Two memories, A and B, are used to store the white balance, and it is possible to retain two adjustment settings per color temperature conversion filter, making for a total of 8 settings altogether.
When the color temperature conversion filter is rotated, it is automatically adjusted to the white balance. (Using menu settings, this can be set for two filters only rather than for each and every filter.)
When the unit is shipped, 3200 K is stored as the preset value for the white balance. This value can always be recalled when no time is available to perform adjustments.
(The preset value can be switched between 3200 K and 4300 K.)

Character display function
The unit comes with functions for showing the switch settings, automatic black balance and white balance adjustment statuses, warning displays, etc. on the viewfinder screen.
Moreover, when a battery in the Digital Magnum Series made by Anton/Bauer Corporation is used as the unit's power supply, the remaining battery charge can be displayed as a numerical value on the viewfinder screen.

Warning system for indicating VTR unit statuses
The user is alerted to problems in the VTR, tape-end, battery consumption, etc. by various alarm lamps and alarm tones. The remaining tape time can also be checked by a character display inside the viewfinder.

4-piece filter disc sets available as standard accessories
The filter best suited to the subject's brightness and color temperature can be selected. Two independent sets of filter discs, one for CC and one for ND, each with four filter discs, are provided as standard accessories.

Automatic aperture reference value finely adjusted
The reference value used for the automatic aperture adjustment can be finely adjusted by performing setting menu operations.

Generation of color bar signals and reference audio signals
The unit contains a circuit for generating color bar signals so that a color monitor can easily be adjusted. It also incorporates a circuit for generating reference level audio signals to enable the audio level to be adjusted with ease.

Functions and circuits for assuring high picture quality
Equipped with the following functions (or circuits) to guarantee that the picture quality will be high, the unit is designed to take advantage of the merits of its high-performance CCD to the maximum extent possible.
- AUTO KNEE circuit for achieving a wide dynamic range through which strong signals can pass.
- Built-in 4-line image enhancer
- Built-in shading compensation function for when the lens extender is used
- Built-in sawtooth wave generator for use with adjustments
- 2-level zebra pattern to enable 3 kinds of patterns including spot zebra to be selected
- ON/OFF selector switch for zebra patterns (viewfinder)

Remote control
Remote control of the basic operations and adjustments of the camera unit and VTR unit is enabled by connecting the extension control unit (optional accessory AJ-EC3).

Features of the VTR unit

Digital system
The pictures are compressed by a component digital recording system that uses the latest compression technology while non-compression PCM recording featuring excellent signal-to-noise ratio, frequency band, waveform characteristics and reproduction of detailed areas is employed for the sound. The result is an even higher picture and sound quality.

Power saving management (SAVE REC) function
When this unit is used for recording, its playback system circuitry is shut down. The output of signals to the HD SDI OUT connector is also shut down when the cable has not been connected so that the unit's power can be conserved while the unit is being operated.

Scene-to-scene continuity
Simply by pressing the VTR START button or lens VTR button, continuity between the scenes is obtained at a precision of 0 to +1 frame.

Rec review function
The last 2 to 10 seconds of a recording are automatically rewound and played back to enable the user to quickly check what has been recorded.

Playback function
This function enables the playback picture (in black and white) to be viewed on the viewfinder screen. Color playback pictures can be output from the HD SDI OUT connector.

Built-in time code generator/reader
The same or separate time code information can be recorded on the dedicated sub-code track and video AUX area, and played back.

External locking of time code
The built-in time code generator can be locked to an external generator. A lithium battery is used as the backup power supply of the built-in time code generator to back up the memory data for about a year even when no power is supplied to the unit.

Built-in DOLBY NR system
The cue audio recording circuitry contains a Dolby B noise reduction circuit.

Audio functions
- A phantom power supply type of microphone (optional accessory) with sharp directivity characteristics can be attached. It can also be detached from the unit for use as an interview microphone.
- Other kinds of microphones can also be connected and, using the model AJ-MH700P microphone holder (optional accessory), attached to the unit.

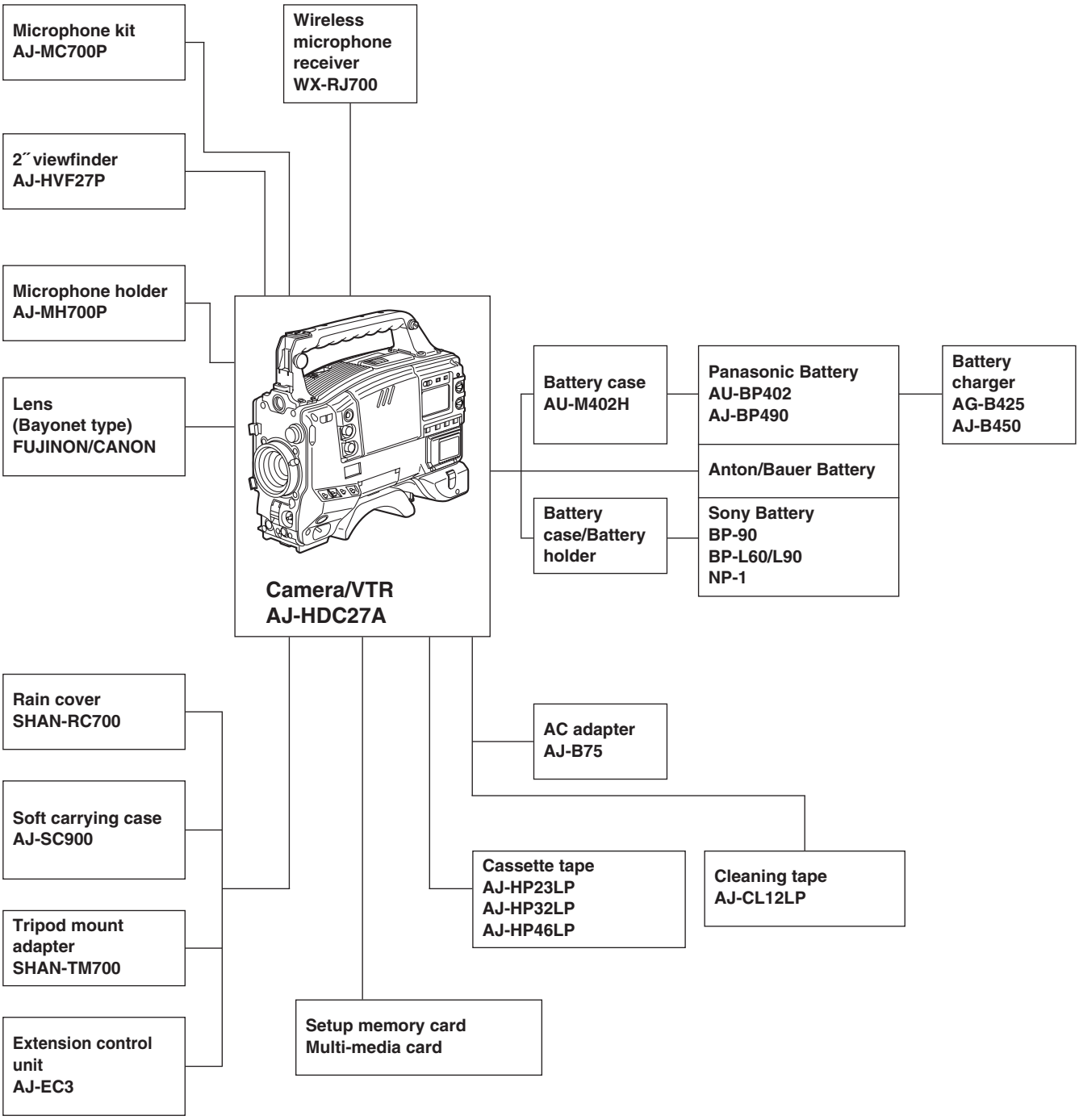
NEWS REC function
This function especially supports shooting in the context of news gathering or documentary filming to ensure that no opportune shutter opportunities are passed up.
In other words, by controlling the start key acknowledgment time, the unit can continuously record without the user having to interrupt the recording: this safeguards against the failure to record those precious moments—a failure that occurs when recording is resumed after it has been shut down temporarily.

RETAKE function
This function is for not leaving behind superfluous cuts when a cut turns out to be no good during the shooting of news, reports or art programs.
Users should remember to handle this function very carefully.
If there is enough leeway in the shooting time and a particular cut is clearly judged to be no good, the tape is rewound to the start of the cut concerned and the rec pause (rec standby) mode is established by operating the MODE CHECK button and lens RET button. Since recording is now commenced from that point on the tape, the no-good cut will be deleted. In order to prevent the cut prior to the no-good cut from being deleted, a part of the no-good cut equivalent to ten or so frames is left behind.
By cutting down on the time taken for copying onto the work tape, for instance, this function is very effective in achieving economical operation.

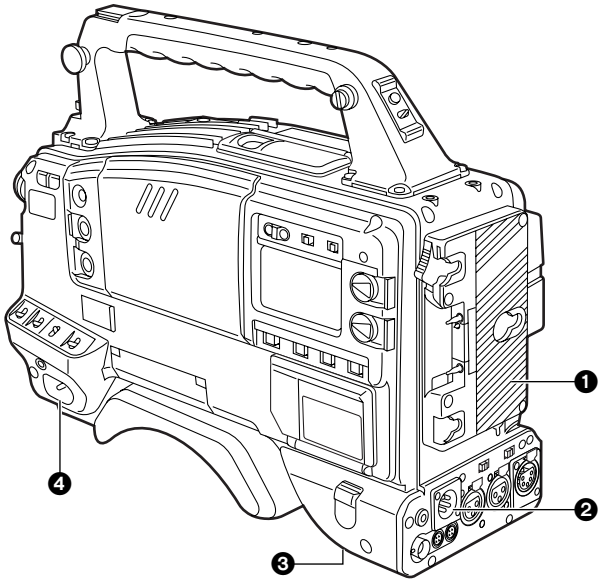
INTERVAL REC function
This function makes simple interval shooting possible. It proves to be very effective when shooting programs with a nature theme or art programs.

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol ᗡᗡ are trademarks of Dolby Laboratories Licensing Corporation.

System Configuration



Power supply section



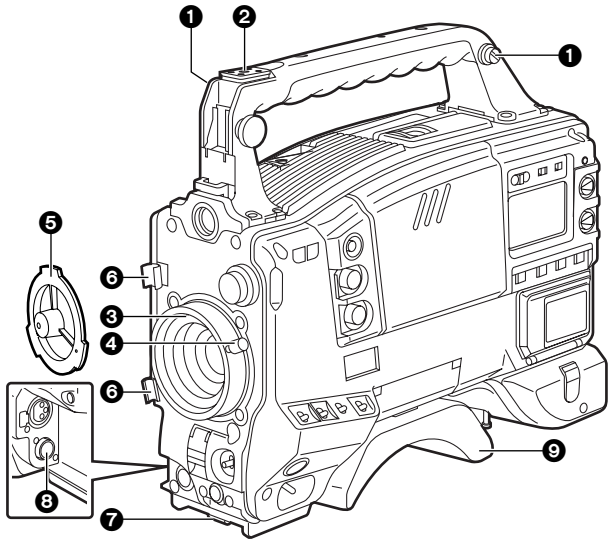
❶ Battery mount
This is for attaching the Anton/Bauer battery pack.

❷ DC IN (external power input) socket (XLR, 4P)
When operating this unit using an AC power source, this socket is connected to the model AJ-B75 AC adapter (optional accessory).

❸ BREAKER button
To protect the equipment, the circuit breaker is tripped when an overcurrent flows inside the unit, and the power is automatically turned off. Push this button to the pushed-in position after performing internal inspections and adjustments. If there is no problem, the power will be turned back on.

❹ POWER switch
ON : Set here to turn on the power.
OFF: Set here to turn off the power.

Accessory mounting section



❶ Hooks for attaching shoulder strap
Attach the ends of the accessory shoulder strap to these hooks.

❷ Light shoe
Use this to attach the video light, etc.

❸ Lens mount (Bayonet type)
Use this to attach the lens.

❹ Lever for securing lens
Insert the lens into the lens mount ❸, and turn the lens mount ring using this lever to secure the lens.

❺ Lens mount cap
To remove the cap, push the lever for securing the lens ❹ up.
Keep the cap in place while the lens is not attached.

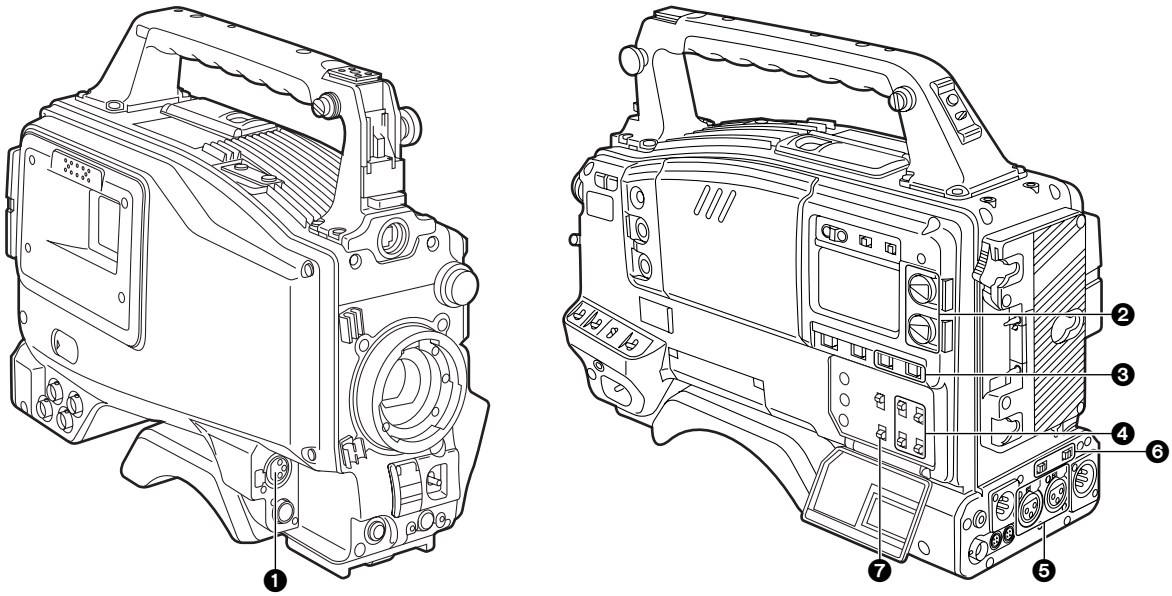
❻ Lens cable/microphone cable clamp
This clamp is for anchoring the lens cable or microphone cable.

❼ Tripod mount
Mount the tripod attachment (SHAN-TM700), available as an optional accessory, when the unit is to be anchored to the tripod.

❽ LENS terminal (12-pin)
The connecting cable of the lens is connected here. For details concerning the lenses that can be used, consult your dealer.

❾ Shoulder pad
This pad can be adjusted to facilitate operation when the unit is operated on the user's shoulder.
The pad position can be moved forward or backward when the two securing screws are loosened.

Audio function section (1)



❶ MIC IN (microphone input) jack (XLR, 3-pin)
Connect the microphone (optional accessory) here. The power for the microphone is supplied from this jack.

❷ AUDIO LEVEL CH1/CH2 (audio channel 1 & 2 recording level adjustment) controls
When the AUDIO SELECT CH1/CH2 switch ❸ is set to MAN, the recording level of audio channels 1 and 2 can be adjusted using these controls.

❸ AUDIO SELECT CH1/CH2 (audio channel 1 & 2 automatic/manual level adjustment selector) switch
This is used to select the method for adjusting the audio levels of audio channels 1 and 2.
AUTO : Set here for automatic adjustment.
MAN : Set here for manual adjustment.

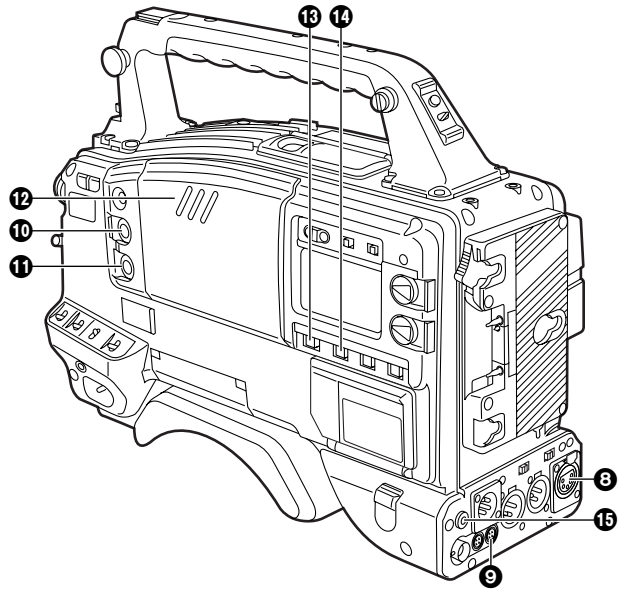
❹ AUDIO IN (audio input selector) switch
This is used to select the input signals to be recorded on audio channels 1 and 2.
FRONT : The input signals supplied from the microphone which has been connected to the MIC IN jack ❶ are recorded.
REAR : The audio input signals supplied from the audio component which has been connected to the AUDIO IN CH1/CH2 connectors ❺ is recorded.

❺ AUDIO IN CH1/CH2 (audio input channel 1 & 2) connectors (XLR, 3-pin)
An audio component or microphones are connected here.

❻ LINE/MIC/+48V (line input/mic input/mic input + 48V) selector switch
This is used to switch the audio input signals from the audio component which has been connected to the AUDIO IN CH1/CH2 connectors ❺.
LINE : The audio input signals from the audio component serving as the line input are selected.
MIC : The audio input signals from the internal power supply type of microphone are selected. (The phantom mic power is not supplied from the unit.)
+48V : The audio input signals from the external power supply type of microphone are selected. (The phantom mic power is supplied from the unit.)

❼ CUE switch
CH1 : The audio CH1 signals are recorded on the cue track.
MIX : Audio CH1 and CH2 mixed signals are recorded on the cue track.
CH2 : The audio CH2 signals are recorded on the cue track.
<Note>
This switch can be made ineffective using the VTR MAIN MENU. (See page 99)

Audio function section (2)



⓼ AUDIO OUT connector (XLR, 5-pin)

This is connected to the audio component.

The sound of audio CH1 and the sound of audio CH2 are output separately.

The switching of the recording sound and playback sound is coupled with the setting of the MONITOR OUT SDI switch. (No sound will be output when the SDI switch is at OFF.)

⓽ DC OUT (DC power output) socket

This is the DC 12 V output socket. A current of approximately 100 mA can be supplied.

⓾ ALARM (warning alarm volume adjustment) control

This is used to adjust the volume of the warning alarms from the earphone which has been connected to the speaker ⓬ or PHONES jack ⓯.

The warning alarms are not audible when this control is at its lowest setting.

⓫ MONITOR (volume adjustment) control

This is used to adjust the volume of all the sound delivered through the speaker or earphone except for the warning alarms.

The sound is not audible when this control is at its lowest setting.

⓬ Speaker

The EE sound during recording or the playback sound during playback can be monitored through this speaker.

The warning alarms are output in synchronization with the flashing or lighting of the warning lamps and warning displays.

The sound heard from the speaker is automatically cut off when the earphone is connected to the PHONES jack ⓯.

⓭ MONITOR SELECT (audio channel selector) switch

This is used to select the audio channels whose sound is to be output from the speaker or microphone.

CH1 : The audio CH1 signals are output.

1/2 : The audio CH1 and CH2 mixed signals or stereo audio signals are output. However, only mixed signals are output through the speaker.

CH2 : The audio CH2 signals are output.

⓮ MONITOR (audio selector) switch

This is used to select the sound which is to be output to the earphone when "1/2" has been selected by the MONITOR SELECT switch ⓭.

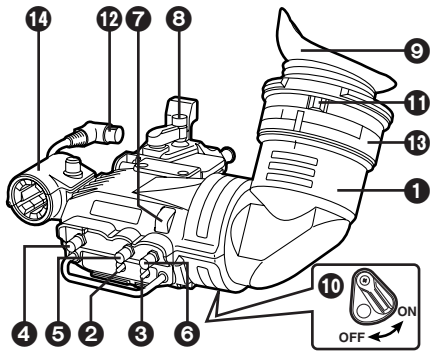
ST : The audio CH1 and CH2 stereo audio signals are output.

MIX : The audio CH1 and CH2 mixed audio signals are output.

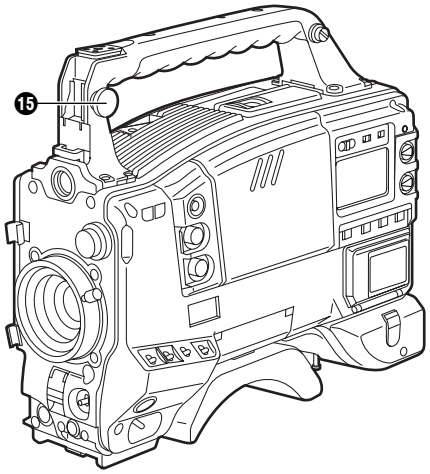
⓯ PHONES (earphone) jack (mini jack)

When an earphone (optional accessory) is connected, the sound selected by the MONITOR switch ⓮ can be heard from the earphone. In addition, the warning alarms relating to the unit's operations or statuses can be heard through the earphone. An earphone which is capable of delivering a sufficiently high volume is recommended. However, when the earphone is connected, the sound heard through the speaker ⓬ will be automatically cut off.

Viewfinder section



(Viewfinder pictured here is the AJ-HVF27P)



(For details concerning the viewfinder, refer to the operating intructions of the viewfinder.)

❶ Viewfinder (optional accessory)
While recording or playback is underway, pictures can be viewed through the viewfinder in black and white. The warning displays concerning the unit's operation statuses and settings, messages, zebra patterns and markers (safety zone markers and center marker) can also be seen in the viewfinder.

❷ ZEBRA (zebra pattern) switch
This is used to display the zebra pattern in the viewfinder.
ON : The zebra pattern is displayed.
OFF: The zebra pattern is not displayed.
When the unit is shipped, the zebra pattern is set so that an area of less than 85% is displayed with a video level of at least 70% or so. Using the setting menu, this area can be set between 50% and over 110% or at a constant level.

❸ TALLY switch
This is used to control the front tally lamp ❼.
HIGH : The brightness of the front tally lamp is increased.
OFF : The front tally lamp is turned off.
LOW : The brightness of the front tally lamp is reduced.

❹ PEAKING control
This is used to adjust the outlines of the images seen inside the viewfinder to make focusing easier. Its adjustment does not affect the output signals of the camera.

❺ CONTRAST control
This is used to adjust the contrast of the picture seen inside the viewfinder. Its adjustment does not affect the output signals of the camera.

❻ BRIGHT control
This is used to adjust the brightness of the picture seen inside the viewfinder. Its adjustment does not affect the output signals of the camera.

❼ Front tally lamp
This lamp is activated when the TALLY switch ❸ is set to the HIGH or LOW position, and it lights while the VTR unit is recording. It also flashes to provide a warning display like the REC lamp inside the viewfinder. The lamp's brightness when it is lighted can be selected using the TALLY switch (HIGH or LOW).

❽ Lever for securing the viewfinder in the back/front and sideways directions
This lever is loosened when the viewfinder position is to be adjusted in the back/front and/or sideways directions.

❾ Eyepiece

❿ Back tally lamp
This lamp lights while the VTR unit is recording. It also flashes to provide a warning display like the REC lamp inside the viewfinder.
When the lever is set to OFF, the back tally lamp is hidden.

⓫ Diopter adjustment ring
This is adjusted in line with the camera operator's diopter in such a way that the user can see the image on the viewfinder screen most clearly.

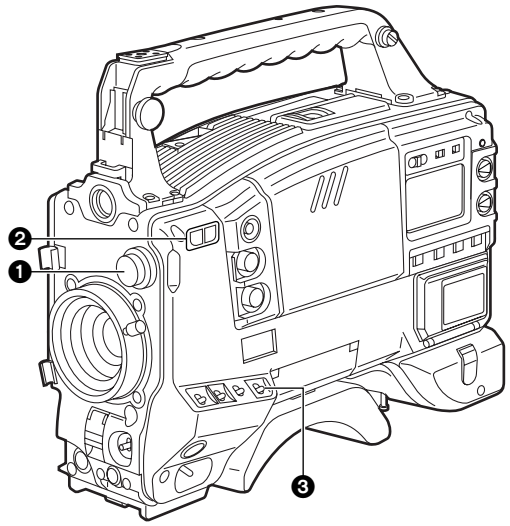
⓬ Connecting plug

⓭ Locking ring

⓮ Microphone holder

⓯ Viewfinder stopper screw
To detach the viewfinder from the camera, first loosen the stopper screw, and then remove the viewfinder.

Shooting (recording)/playback function section (1)



1 CC FILTER/ND FILTER (filter selector) control

This is used to select the filter to match the light source which is illuminating the subject. If the control setting is changed while the menu display mode is set to "3" (default setting), the new setting will appear at the setting change message display area of the viewfinder screen.

■ Control settings and filter selection

CC FILTER control (large diameter) setting	CC filter selection
A	Cross filter
B	3200 K
C	4300 K
D	6300 K

ND FILTER control (small diameter) setting	ND filter selection
1	CLEAR (Transparent)
2	1/4 ND
3	1/16 ND
4	1/64 ND

● The two types shown above are provided for filter combinations.

■ Examples of filter selection

Shooting conditions	CC filter	ND filter
Sunrise, sunset, inside a studio	B (3200 K)	1 (CLEAR)
Outdoors under a clear sky	C (4300 K) or D (6300 K)	2 (1/4 ND) or 3 (1/16 ND)
Outdoors under cloudy or rainy skies	D (6300 K)	1 (CLEAR) or 2 (1/4 ND)
Snowscapes, high mountains, seashores or other perfectly clear scenery	C (4300 K) or D (6300 K)	3 (1/16 ND) or 4 (1/64 ND)

2 Synchro scan adjustment switches

These switches become effective when the shutter switch 7 is set to ON and synchro scanning is selected. They are used to adjust the synchro scan speed.

When the "–" switch is pressed, the shutter speed is reduced; conversely, when the "+" switch is pressed, it is increased.

During personal computer monitor shooting, etc. adjust these switches to the positions where the horizontal bar noise inside the viewfinder is decreased.

3 WHITE BAL (white balance memory selector) switch

PRST : Set the switch to this position in cases where there is not enough time to adjust the white balance. The 3200 K white balance value is stored in the memory. (This can be changed to 4300 K.)

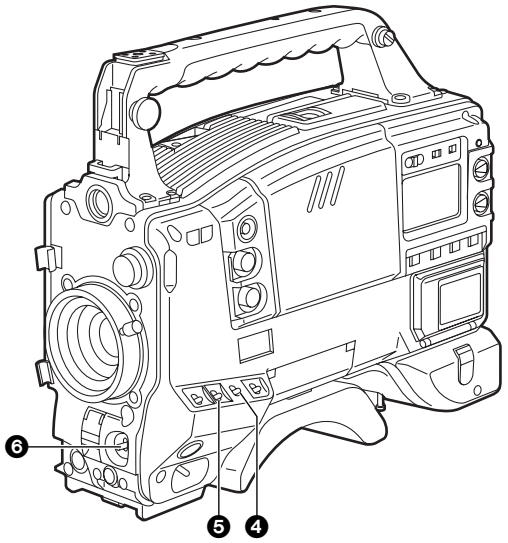
A or B : When the AUTO W/B BAL switch 6 is set to AWB, the white balance is automatically adjusted to match the setting position of the CC FILTER control 1, and the adjustment value is stored in memory A or memory B.

When the CC FILTER control and the WHITE BAL switch are set to the same positions as they were when adjustment was performed, the adjustment value stored in the memory is recalled, and the unit is automatically adjusted to the white balance that corresponds to this value.

If this switch setting is changed while the menu display mode is set to "3" (default setting), the new setting will appear at the WHITE BAL switch display position on the viewfinder screen.

(Example: "A")

Shooting (recording)/playback function section (2)



❹ OUTPUT (output signal selector)/AUTO KNEE switch

This is used to select the video signals which are to be output from the camera unit to the VTR unit, viewfinder and video monitor.

The AUTO KNEE function can be used when the pictures shot by the camera are selected.

■ OUTPUT/AUTO KNEE switch setting position

BARS	Color bar signals are output. The AUTO KNEE circuit is not activated. Use this position in the following circumstances. ● When the video monitor is to be adjusted ● When the color bar signals are to be recorded
CAM. **AUTO KNEE OFF**	The pictures shot by the camera are output. The AUTO KNEE circuit is not activated. MANUAL KNEE is selected as the default setting.
CAM. **AUTO KNEE ON**	The pictures shot by the camera are output. The AUTO KNEE circuit is activated.

AUTO KNEE function

If the level is adjusted to people or scenery for shooting when the background is very bright, the background becomes subject to white-out, causing the buildings and scenery in the background to be blurred. When the AUTO KNEE function is activated in a situation like this, the background can be reproduced distinctly. This function is very effective for shooting in the following situations.

- When shooting people in the shade under a clear sky
- When shooting people inside a vehicle or a building and outdoor scenery seen through windows at the same time
- When shooting scenes with a high contrast

❺ GAIN (gain selector) switch

This is used to select the gain of the video amplifier in accordance with the lighting status during shooting. The gain values corresponding to the L, M and H settings are specified by the setting menu ahead of time. The settings at shipment are 0 dB for L, 6 dB for M, and 12 dB for H.

If this switch setting is changed while the display mode is set to "3," the new setting will appear at the gain display position on the viewfinder screen. (Example: "12 dB")

❻ AUTO W/B BAL (automatic white balance/black balance adjustment) switch

AWB: This is selected when the white balance is to be adjusted automatically. When the WHITE BAL switch (3) is set to "A or B" at this time, the adjusted value will be stored in memory A or memory B.

ABB : This is selected for automatically adjusting the black balance.

The adjusted value is stored in a dedicated memory.

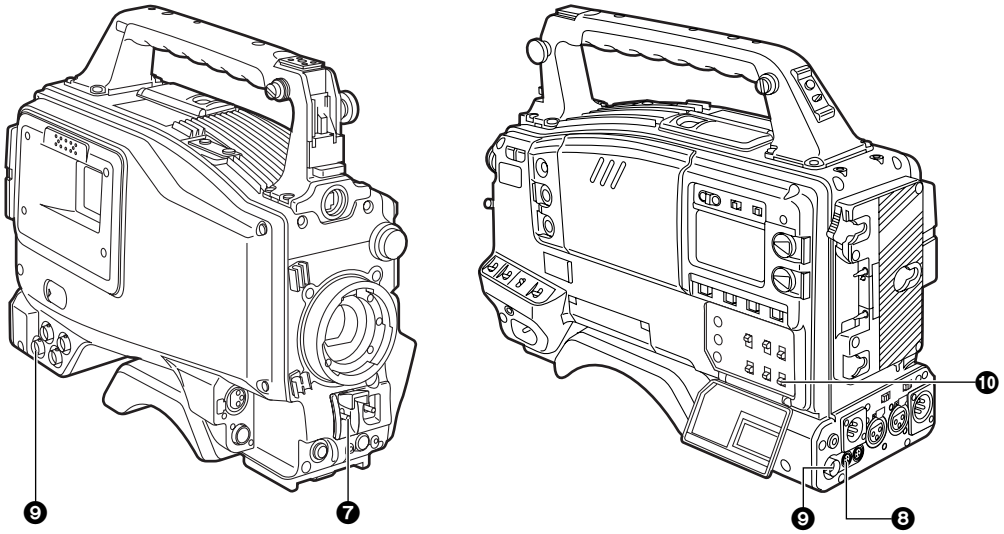
Black shading is automatically corrected when SHD and ABB SW CTRL on the OPTION screen of CAM MAIN MENU 4 are set to ON and the AUTO W/B BAL switch is pressed continuously for 8 seconds or more on the ABB side.

<Note>

When white balance or black balance are being automatically adjusted and the switch is pressed again to either the AWB side or to the ABB side, the automatic adjustment for the side pressed will be stopped.

The adjusted value in this case is the value before automatic adjustment was performed.

Shooting (recording)/playback function section (3)



❼ SHUTTER switch

This is set to ON when the electronic shutter is to be used. When the SEL side is pressed, the shutter speed and mode display are changed in the range which was set ahead of time in the setting menu.

If this switch setting is changed while the display mode is set to "2" or "3," the new setting will appear at the shutter display position on the viewfinder screen.

(Example: ": 1/120", ": 1/61.2")

❽ ECU REMOTE (remote control) connector (6-pin)

The AJ-EC3 extension control unit (optional accessory) is connected here.

<Note>

Before connecting or disconnecting the remote control cable, be absolutely sure to set the POWER switches on the unit and extension control unit to the OFF position.

❾ HD SDI OUT connector (BNC)

The HD SDI signals (video and audio) for the monitor in accord with the position of the MONITOR OUT SDI switch ❿ are output from here.

When the SDI switch is at "EE/PB," the EE video and EE audio signals will be output during recording and the playback video and playback audio signals will be output during playback.

When the SDI switch is at "EE," the camera video signals are output at all times.

When the CHARACTER switch is set to ON while performing the menu settings, it is possible to superimpose the setting menus onto the pictures being shot so that they can be checked on the monitor screen.

❿ SDI switch

This is used to select the video and audio signals which are to be output from the HD SDI OUT connector and the audio signals which are to be output from the AUDIO OUT connectors.

EE/PB : During playback, the playback video and playback audio signals are output; in all other modes, the EE video and EE audio signals are output.

EE : The EE video and EE audio signals are output at all times.

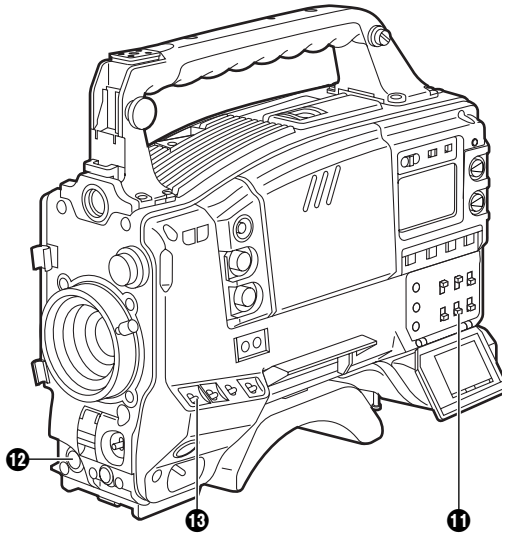
OFF : Signal output is stopped. (This serves effectively as a power-conserving mode.)

<Note>

With the settings at shipment, this function does not work at the OFF position when a cable is connected to the HD SDI OUT connector. For further details, refer to the FUNCTION screen (page 95) of the VTR menu.

During recording, the HD SDI OUT output signals cannot be switched from ON to OFF or vice versa. The status set prior to the commencement of recording is maintained.

Shooting (recording)/playback function section (4)



⓫ CHARACTER switch

This controls whether the characters are to be superimposed onto the pictures which are output from the HD SDI OUT connector.

ON : The characters are superimposed.

OFF: The characters are not superimposed.

⓬ VTR START button

When this is pressed, recording starts; when it is pressed again, recording stops.

This button functions in the same way as the lens VTR button.

⓭ VTR SAVE/STBY (tape protection) switch

This is used to select the power supply mode when the VTR has temporarily stopped recording (REC PAUSE mode).

SAVE: This is the tape protection mode. The cylinder is stopped in the half-loading status. Less power is consumed than at the STBY position, and the operating time provided by the battery is prolonged. Compared with the STBY position, it takes longer for recording to commence after the VTR START button ⓬ has been pressed.

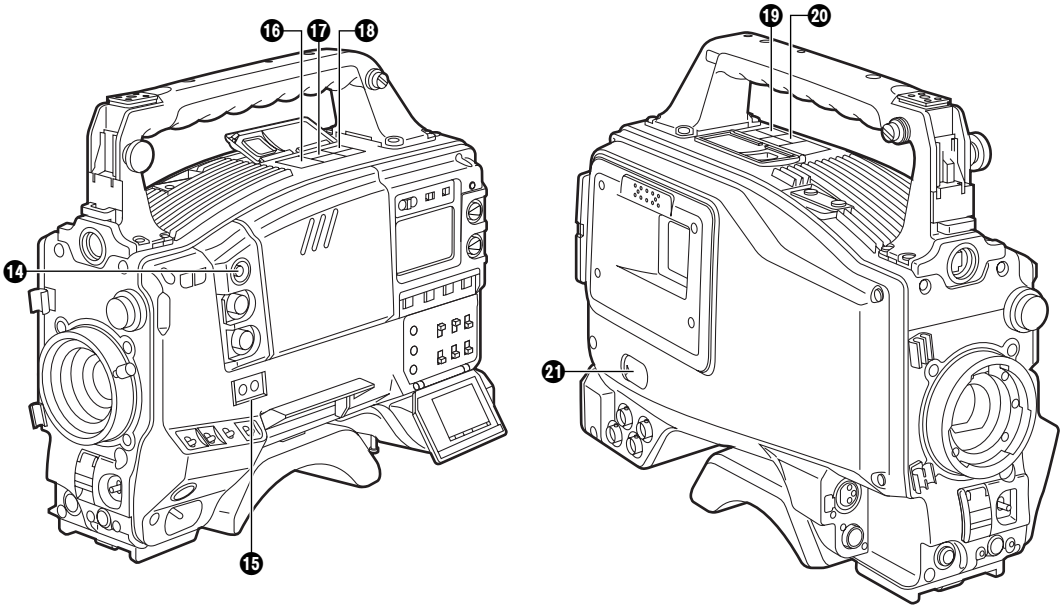
When the switch is set to this position, the VTR SAVE lamp inside the viewfinder lights.

STBY: At this position, recording is commenced as soon as the VTR START button is pressed.

<Note>

When the prescribed amount of time has elapsed in the STBY mode, the unit is automatically set to the SAVE mode. To return the unit to the STBY mode, set the VTR SAVE/STBY switch to SAVE, and then again to the STBY position.

Shooting (recording)/playback function section (5)



⑭ MODE CHECK button

While this button is held down, the camera's setting mode is shown in the viewfinder.

This does not affect the output signals of the camera.

⑮ USER 1 and USER 2 buttons

A user setting can be allocated to each of these buttons using the setting menu.

When a button is pressed, the user setting mode allocated to it is selected.

When the button is pressed again, the selected mode is released.

⑯ EJECT button

This is pressed to insert or eject the cassette.

⑰ REW button

This is pressed to rewind the tape. The button's lamp comes on during rewinding.

When it is pressed during playback, the tape will be reviewed (rewound and played back) at about twice the regular speed while the button is held down.

⑱ FF button

This is pressed to fast forward the tape. The button's lamp comes on during fast forwarding.

When it is pressed during playback, the tape will be cued (fast forwarded and played back) at about twice the regular speed while the button is held down.

⑲ PLAY/PAUSE button

This is pressed to view the playback picture on the viewfinder screen or using a color video monitor. The button's lamp comes on during playback.

When it is pressed during playback, the unit is set to pause in the playback mode (PLAY PAUSE), and the button's lamp flashes. If the unit is left in the pause mode for two minutes, it automatically changes to the stop (STOP) mode.

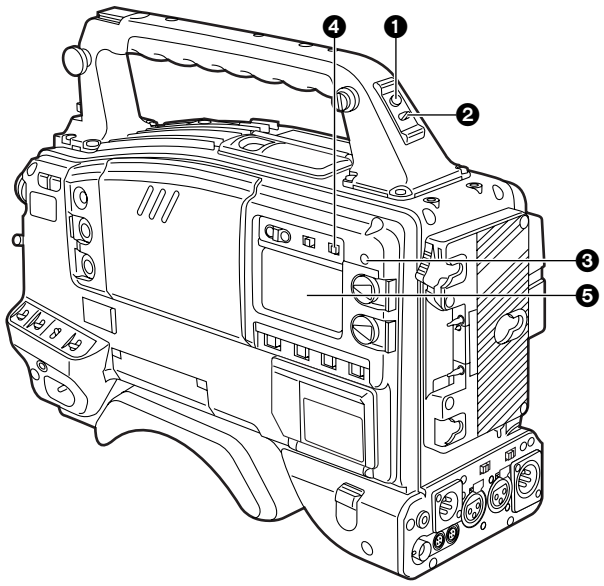
⑳ STOP button

This is pressed to stop the tape travel.

㉑ EMERGENCY screw (inside rubber cap)

If the cassette does not eject even when the EJECT button is pressed, use a screwdriver or similar implement to push and turn the EMERGENCY screw at the same time: this will cause the cassette to be ejected.

Warning/status display section



❶ Back tally lamp (unit)
When the back tally switch ❷ is set to ON, this lamp serves the same function as the front tally lamp in the viewfinder.

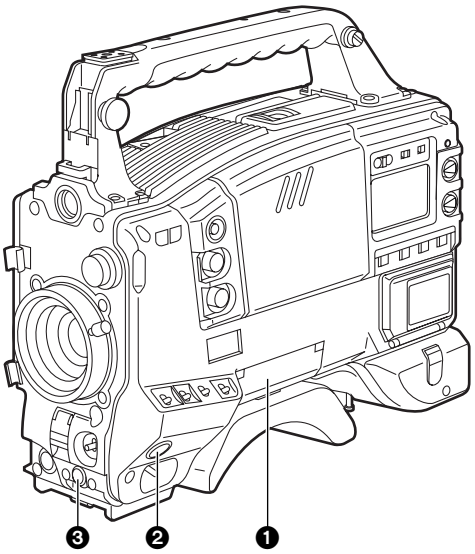
❷ Back tally switch
This is used to control the unit's back tally lamp ❶.
ON : The unit's back tally lamp is operational.
OFF: The unit's back tally lamp is not operational.

❸ WARNING lamp
When a problem of some form or other occurs within the VTR unit, this lamp flashes or lights.

❹ LIGHT switch
ON : The display window ❺ is illuminated.
OFF: The illumination of the display window is turned off.

❺ Display window
This displays the alarms, remaining battery charge, audio levels, time data, etc. relating to the VTR unit.

Menu operation section



❶ Setup card insertion slot

The setup card, available as an optional accessory, is inserted into this slot.

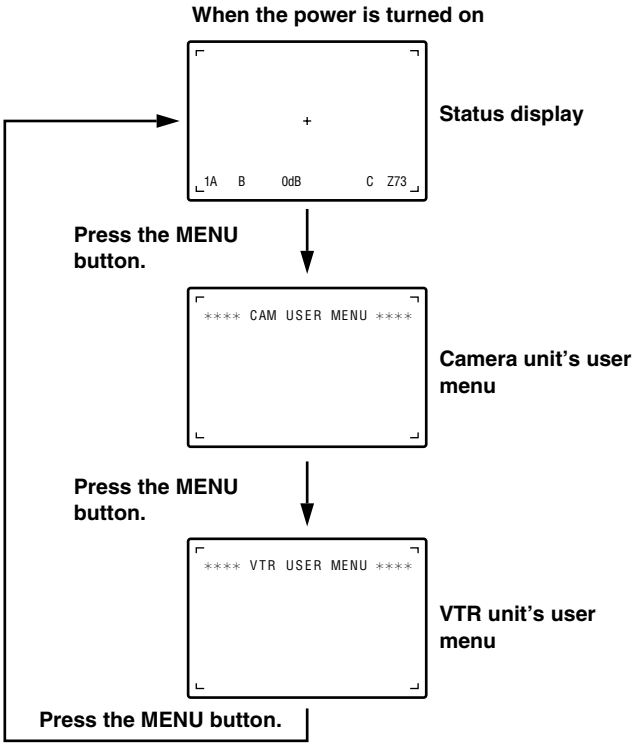
❷ MENU button

When this is pressed, the camera unit's user menu screen, which was set at the time of shipment, appears.

When it is pressed again, the VTR unit's user menu screen appears.

When it is pressed once more, the menu screen display is cleared.

The selection of the menu for the user menu can be changed on the USER MENU SELECT screen.



❸ JOG dial button

When this dial button is turned while the menu screen is displayed, the cursor is moved to each of the setting items.

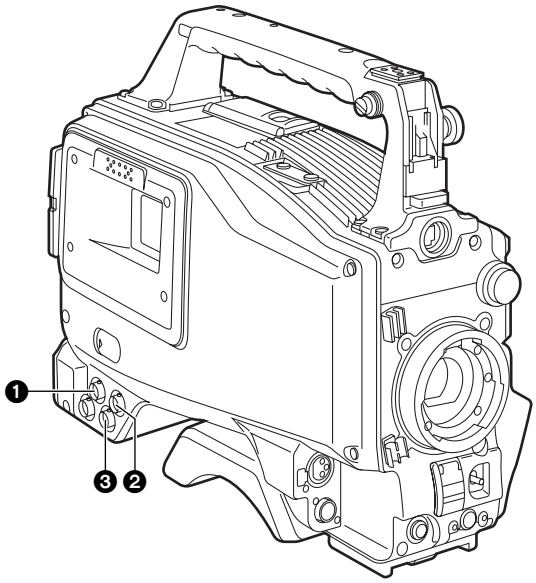
The menu items are set by operating this dial button.

There are two types of menus, MAIN and SUB, and each menu is displayed on a page-by-page basis.

The menu configuration can be changed to suit the desired objective.

For details on the menu operation method, refer to "Menu operations" on pages 70 to 72.

Time code related section (1)



❶ GENLOCK IN connector (BNC)

Supply the analog HD reference signal to this connector for gen-locking the camera unit or when externally locking the time code.

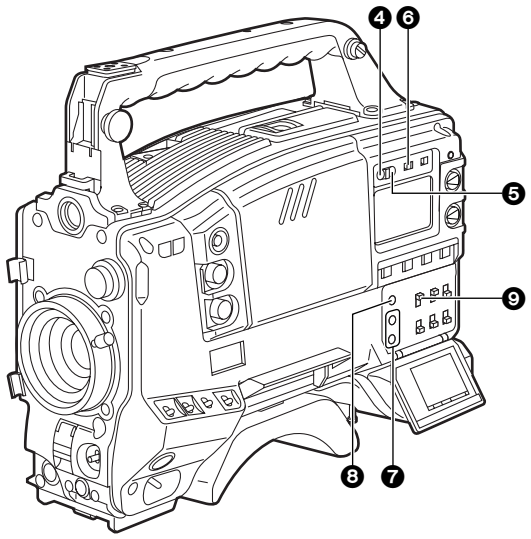
❷ TC IN connector (BNC)

Supply the time code which will serve as the reference to this connector when externally locking the time code.

❸ TC OUT connector (BNC)

To lock the time code of an external VTR to the unit's time code, connect this connector to the time code input (TC IN) connector on the external VTR.

Time code related section (2)



❹ HOLD button

The time data display of the counter display section which was on the screen at the moment when this button is pressed is held. (However, the time code generator keeps running.) When the button is pressed again, the hold status is released.

It is used, for instance, to find out the time at which a particular scene was shot.

<Note>

If the HOLD button is pressed and held down while the DISPLAY switch ❻ has been set to UB, "HOLD" on the counter display flashes, and the button functions to display the VITC user's bit information recorded in the video AUX area on the counter display section.

❺ RESET button

This is used to reset the time data on the counter display section to "00:00:00:00." If it is pressed while the TCG switch ❾ is at the SET position, the time code data and user's bit data are respectively reset to "00:00:00:00."

❻ DISPLAY switch

This is used to display the time code, CTL or user's bit on the counter display section depending on the setting positions of this switch and the TCG switch ❾.

UB : The user's bit is displayed.
TC : The time code is displayed.
CTL : CTL is displayed.

❼ "+" button, "–" button

These are used to increment or decrement by 1 the figure in the digit which was made to flash by the SHIFT button ❽ when the time code or user's bit is to be set.

❽ SHIFT button

This causes the digit to be set to flash when the time code or user's bit is to be set.

❾ TCG (time code selector) switch

This is used to set the running mode of the built-in time code generator.

F-RUN : Set here to have the time code run all the time regardless of the VTR's operation.
This position is used to align the time code with the time or externally lock the time code.

SET : Set here when the time code or user's bit is to be set.

R-RUN : Set here to have the time code run only during recording.
The time code on the tape with scene-to-scene continuity is recorded continuously.

A battery pack or an AC power source can be used as this unit's power supply.

To use the battery pack, there is a choice of three makes of batteries, namely:

- Panasonic
- Anton/Bauer
- Sony

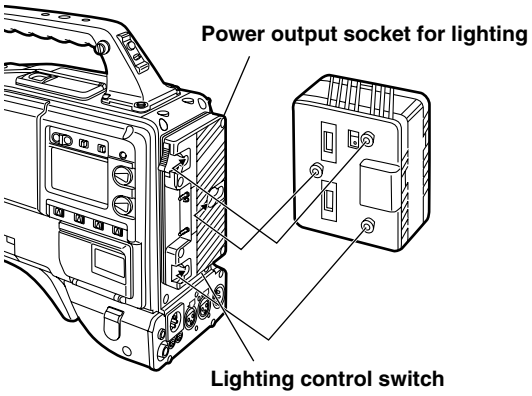
<Note>

Batteries of other makes can also be supported by changing the setting menu but no guarantees are made for the system when they are actually used with this unit.

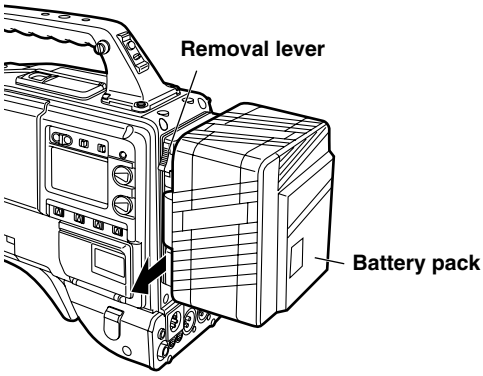
Before using the battery pack, recharge the battery using the battery charger.
(For details on the recharging method, refer to the operating instructions of the battery concerned.)

Using the Anton/Bauer battery pack

1 Attach the battery pack.
Insert the pack in the direction shown by the arrows, and then slide it into position.



2 To detach the battery, pull the battery mount removal lever all the way down, and slide the battery pack in the direction shown by the arrow.

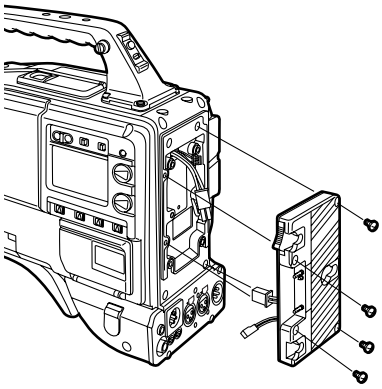


<Note>

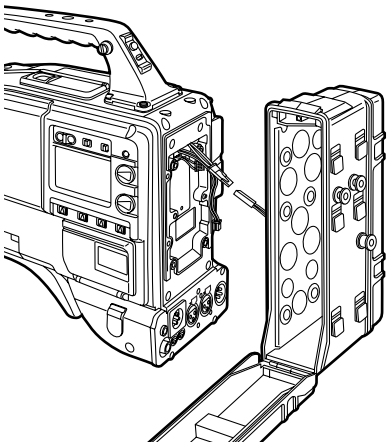
An intelligent battery system and ultra light system are supported.
The remaining battery charge displayed inside the viewfinder is usually shown as a percentage of the full charge, but when the battery charge is nearly completely dissipated, the percentage display is replaced with a voltage display.

Using the Panasonic AU-BP402 battery pack

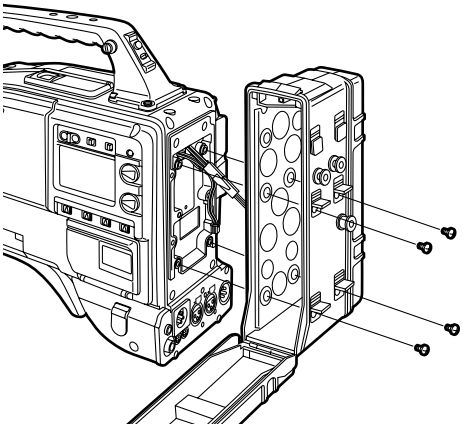
1 Detach the battery mount.



2 Connect the AU-M402H battery case connector with the connector on the unit.

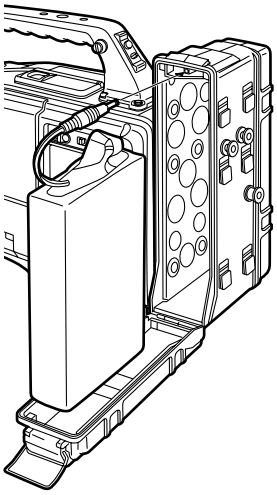


3 Attach the AU-M402H battery case.
Open the battery case cover, and raise it above the rubber cap: screw holes will now be visible. Tighten the screws using a screwdriver, then attach the case to the unit and tighten the screws fully.



<Notes>
- Do not pull the rubber cap forcefully.
- When mounting the battery case, take care not to pinch the connecting cord.

4 Connect the plug on the battery pack to the connector inside the case, and insert the battery pack.

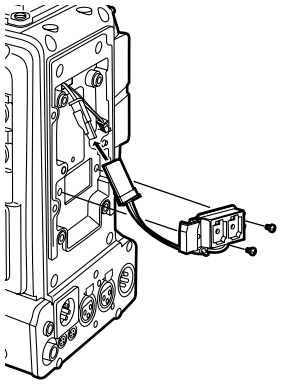


<Note>
Before connecting or disconnecting the plug, be absolutely sure to turn off the unit's power.

Using the Sony NP-1 battery pack

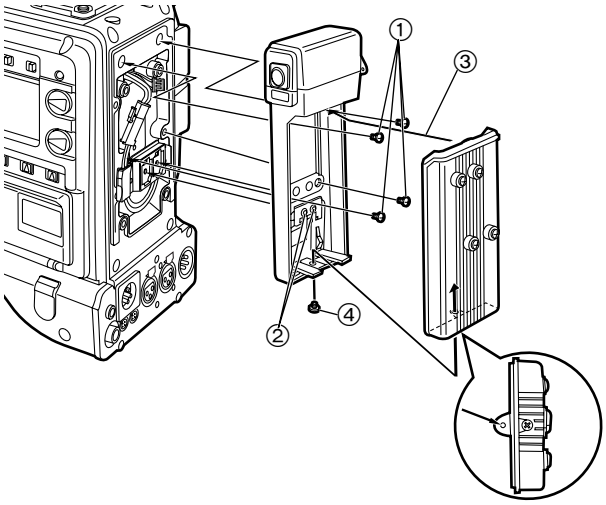
1 Detach the battery mount.
See page 22.

2 Attach the accessory battery mounting connector.



3 Attach the Sony battery holder. As shown in the figure, attach the battery case with the cover detached and then the detached cover.

① Tighten the mounting screws.
② Tighten the power contact screws.
③ Insert the top of the detached cover in the direction shown by the arrows.
④ Align the holes in the bottom of the cover (metal part) with the holes at the bottom of the case, and use the battery holder screws to attach the case to the battery mounting connector.



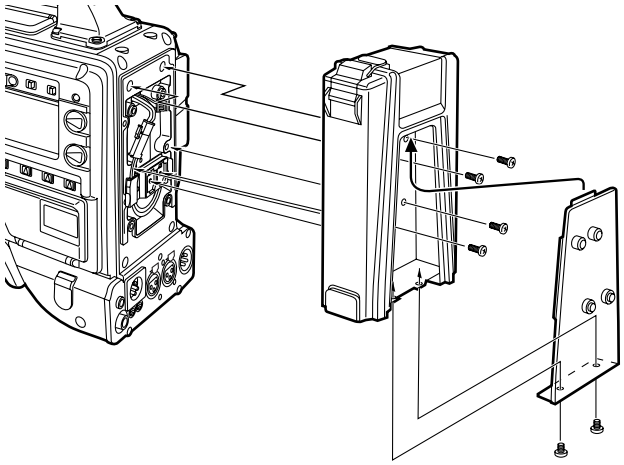
<Note>
When mounting the battery holder, take care not to pinch the connecting cord.

Using the Sony BP-90 battery pack

1 Attach the accessory battery mounting connector.

2 Attach the battery case for the BP-90.

1. Tighten the mounting screws.
2. Tighten the power contact screws.
3. Insert the top of the detached cover in the direction shown by the arrows.
4. Align the holes in the bottom of the cover (metal part) with the holes at the bottom of the case, and use the screws to attach the case.

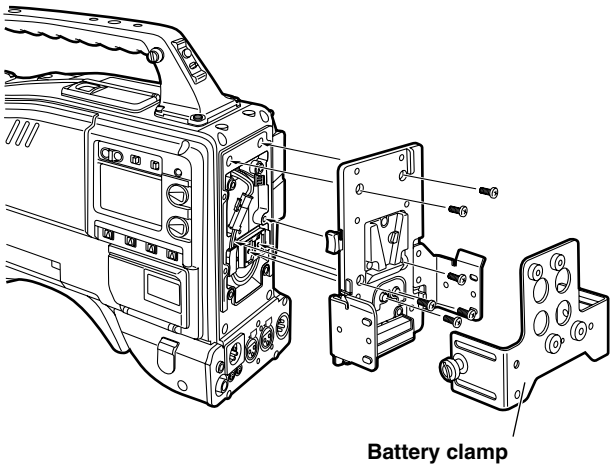


Using the Sony BP-L60/L90 lithium-ion battery

1 Attach the accessory battery mounting connector. (Refer to the previous page.)

2 Attach the battery holder for the lithium-ion battery.

1. As shown in the figure, detach the battery clamp, and attach the holder using the mounting screws.
2. Tighten the power contact screws.
3. Attach the battery clamp.



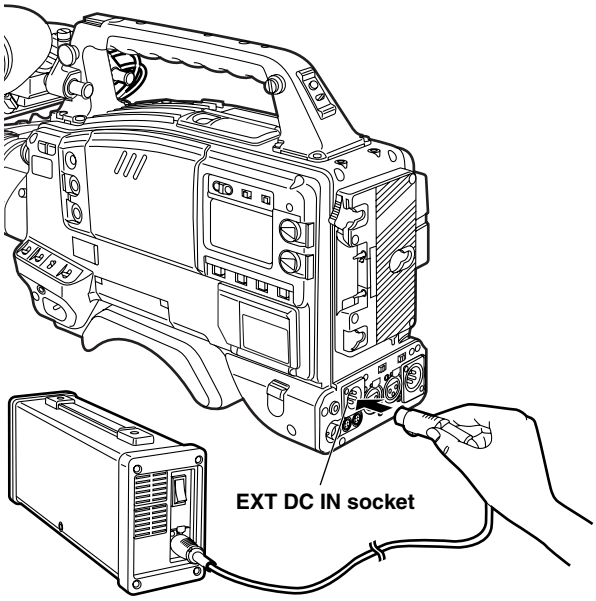
<Notes>

- Before connecting or disconnecting the plug, be absolutely sure to turn off the unit's power.
- When attaching the battery case or holder, take care not to pinch the connecting cord.

Using an AC power supply

When the AJ-B75 AC adapter is used

1 Connect the DC OUT connector on the AJ-B75 AC adapter to the EXT DC IN socket on the unit.



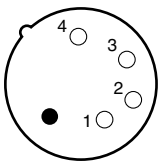
2 Set the power of the AC adapter to ON.

3 Set the unit's power switch to ON.

<Notes>

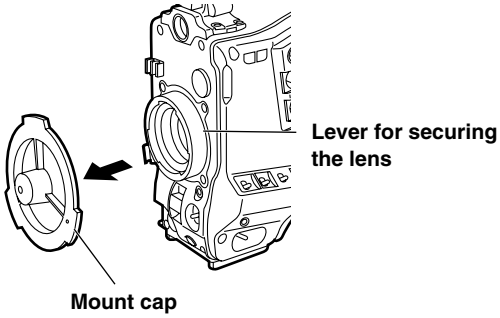
- Check the pin signals of the EXT DC IN socket when using an external power supply other than the AJ-B75 AC adapter. (DC 12 V, 8.5 A)
- Power from the AC adapter takes precedence when both a battery pack and AC adapter have been connected.
- When using the AC adapter, be absolutely sure to first set the power of the AC adapter to ON and then set the unit's power switch to ON.
  If the power is turned on in the reverse sequence, the output voltage of the AC adapter will rise gradually, and the unit may malfunction as a result.

Pin no.	Signal
1	GND
2, 3	——
4	+12 V

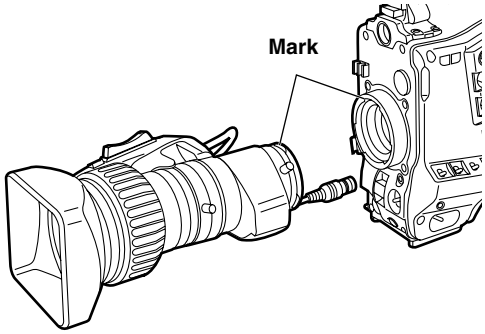


Attaching the lens

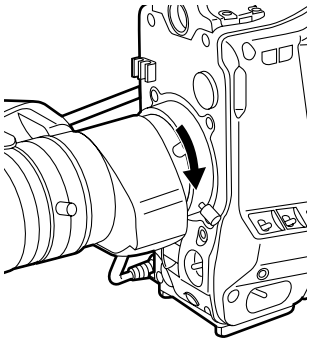
1 Raise the lever for securing the lens, and detach the mount cap.



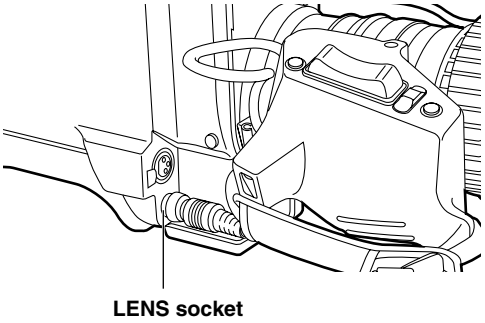
2 Align the center mark of the lens with the groove in the top center of the lens mount, and attach the lens.



3 Push down the lever for securing the lens to secure the lens.



4 Push the cable into the cable clamp, and connect it to the LENS socket.



<Notes>

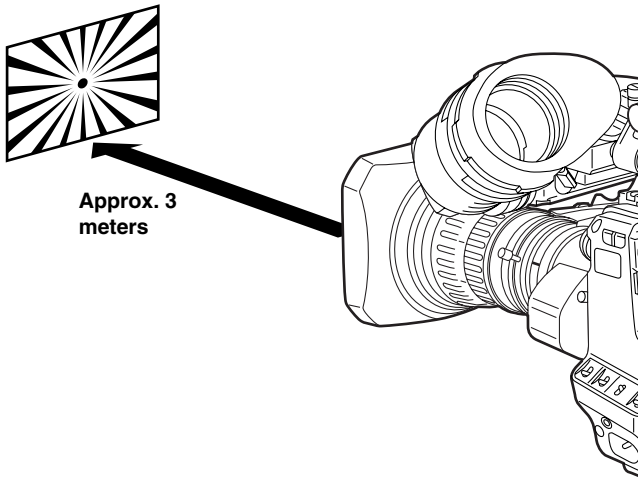
- For details on handling the lens, refer to the operating instructions which accompany the lens.
- The following lens adjustments and camera adjustments may be necessary depending on the lens mounted.
  1. Lens flange back adjustment
  2. Lens auto iris operating speed adjustment
  3. Lens white shading adjustment (performed on the unit)

Adjusting the lens flange

If the subject is not focused properly in the telephoto and wide-angle modes during zoom operations, adjust the flange back (distance from the lens mounting surface to the image-forming surface).
Once this adjustment is done, it need not be redone unless the lens is replaced.

Adjustment method

<Note>
For details on the adjustment method and lens positions, refer also to the operating instructions that accompany the lens.



1 Attach the lens to the camera.
At this stage, do not forget to connect the lens cable.

2 Set the lens aperture to manual and open the aperture.

3 Set the lighting in such a way that the appropriate video output level is achieved at a distance of about 3 meters away from the chart used for the flange back adjustment.
If the video level is too high, use the filters and shutter.

4 Loosen the screw securing the F.f (flange focus) ring.
<Note>
On some lenses, this may be marked as F.b (flange back) ring.

5 Set the zoom ring to the telephoto position either manually or electrically.

6 Shoot the chart used for the flange back adjustment, and turn the distance ring to adjust the focus.

7 Set the zoom ring to the wide-angle position, and turn the F.f ring to adjust the focus.
Take care not to move the distance ring during this process.

8 Repeat steps ***5*** to ***7*** until the focus is adjusted at both the telephoto and wide-angle positions.

9 Tighten the screw securing the F.f ring.

Adjusting the white shading

Follow the procedure outlined below when the white shading needs to be re-adjusted.

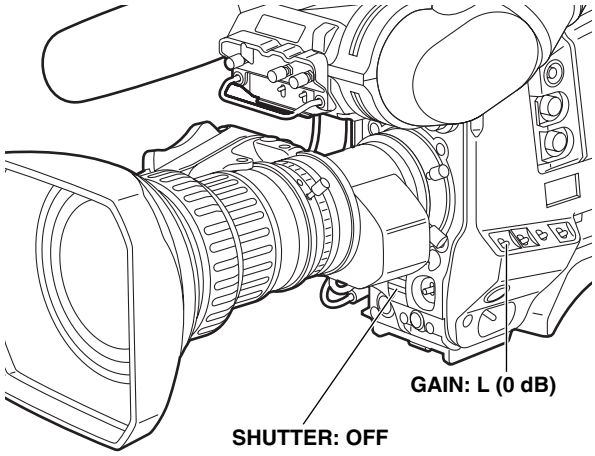
Adjustment method

<Notes>

- The method below can be used for the white shading adjustments with most lenses. However, with some very special lenses, a different adjustment method may be necessary.
- Even when the white shading has been adjusted, tinting may occur in the vertical direction near the lens aperture open position. This is a phenomenon which is inherent to lenses and optical systems and is not indicative of malfunctioning.

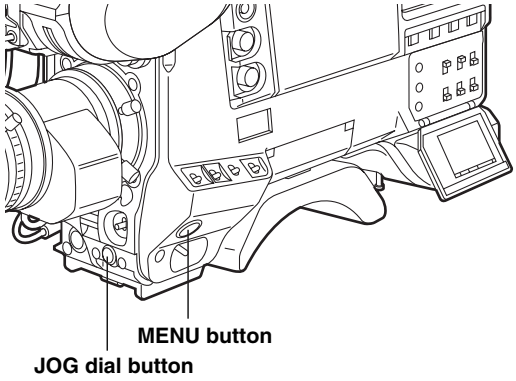
1 Attach the lens to the camera.
At this stage, do not forget to connect the lens cable.

2 Set the electronic shutter to OFF, and set the gain to "L (0 dB)."



3 If the lens is provided with an extender, disengage the extender function.
Similarly, if the lens is provided with a ratio converter, disengage the ratio converter function.

4 ① Perform the menu operations (pages 70 to 72), and display the "VF DISPLAY" screen of CAM MAIN MENU 2.
② Set ZEBRA1 DETECT to 70%, ZEBRA2 DETECT to 85% and ZEBRA2 to STOP. (Default setting mode)
③ Press the MENU button and close the menu screen.
④ Set the ZEBRA switch on the viewfinder to ON.

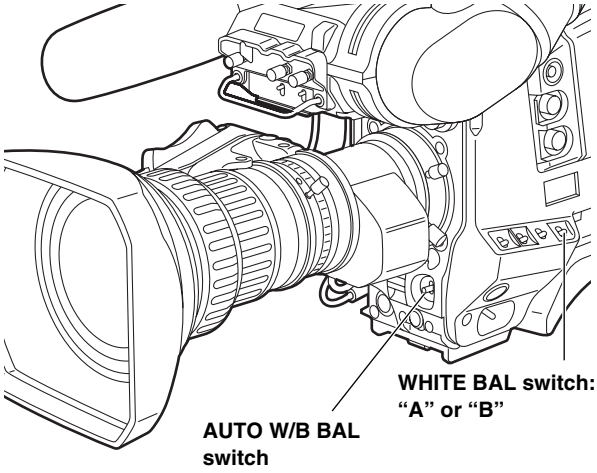


5 Shoot a sheet of white paper devoid of color irregularities.
<Note>
Since flicker tends to occur under fluorescent lights, mercury lamps and other such lights, use a source of light such as sunlight or a halogen lamp which does not tend to produce flicker.

6 Set the lens aperture to manual, and adjust the lens aperture in such a way that ZEBRA fills the whole screen.
Check that the lens aperture is between F/4 and F/11.
<Notes>

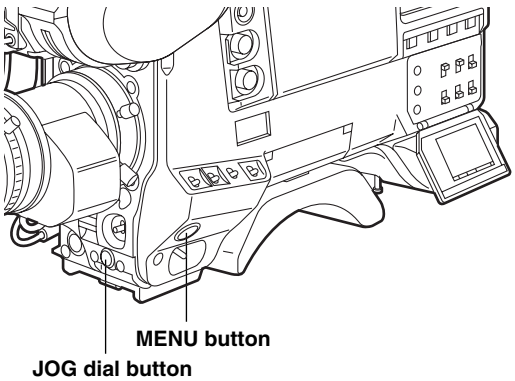
- Since unevenness in the lighting will make it impossible for ZEBRA to fill part of the screen, try adjusting the lighting position, etc.
- Try adjusting the lighting position, etc. also when the lens aperture is not between F/4 and F/11.
- Always be sure to leave the electronic shutter at OFF.

7 ①Set the WHITE BAL selector switch to “A” or “B,” and initiate the automatic white balance (AWB) adjustment using the AUTO W/B BAL switch.
②Initiate the automatic black balance (ABB) adjustment using the AUTO W/B BAL switch.
③Initiate the automatic white balance (AWB) adjustment again using the AUTO W/B BAL switch.



8 Repeat step ***6***.

9 ①Perform the menu operations (pages 70 to 72), and display the “WHITE SHADING” screen of CAM MAIN MENU 4.
②Turn the JOG dial button to move the cursor to the DETECTION, and press the JOG dial button.
“ACTIVE” now appears on the screen to indicate that the white shading is being automatically adjusted.
The adjustment is completed when the “ACTIVE” display is cleared.
③Press the MENU button to close the menu screen.



10 If the lens is provided with an extender, engage the extender function, and repeat steps ***6*** to ***9***.

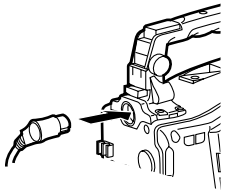
The white shading adjustment is now complete.
The adjusted values are retained in the non-volatile memory so that there is no need to adjust the white shading again even after the unit’s power is turned off.

Adjusting the viewfinder (The viewfinder is an optional accessory.)

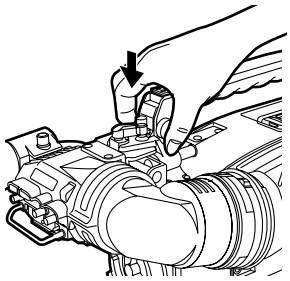
Attaching the viewfinder

1 Check that the camera's POWER switch is at OFF.

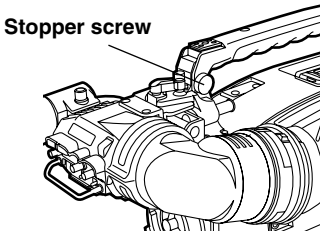
2 Connect the plug to the viewfinder connecting terminal.
<Note>
When connecting the plug to the viewfinder connecting terminal, push the plug firmly into place.



3 Push the viewfinder down.



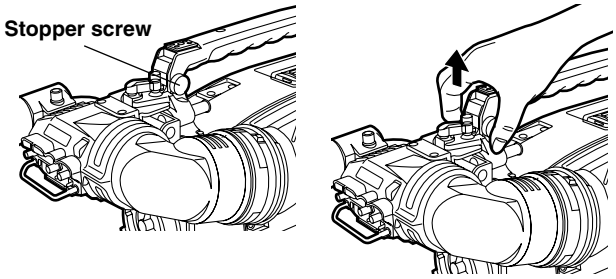
4 Tighten the stopper screw firmly.



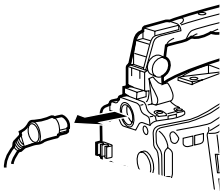
Detaching the viewfinder

1 Check that the camera's POWER switch is at OFF.

2 Loosen the stopper screw, pull the viewfinder straight up, and draw it out.
<Note>
Use both hands to draw the viewfinder out. It may not be possible to remove the viewfinder smoothly with one hand, which may cause damage to it.



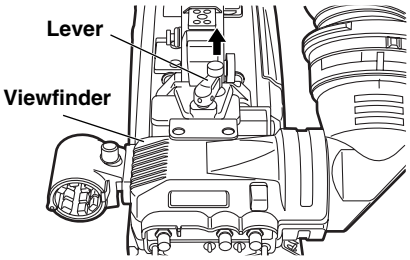
3 Disconnect the plug from the viewfinder connecting terminal.



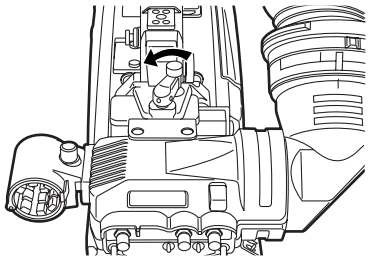
Adjusting the viewfinder (The viewfinder is an optional accessory.)

Adjusting the viewfinder position

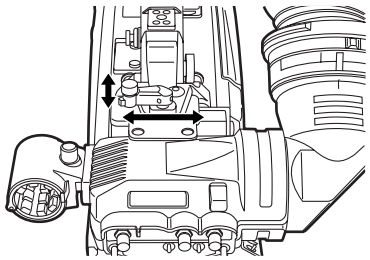
1 Pull up the lever for securing the viewfinder in the back/front and sideways directions to disengage the lock.



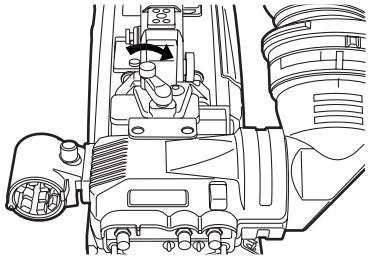
2 Loosen the lever for securing the viewfinder in the back/front and sideways directions.



3 Move the viewfinder in the back/front and sideways directions, and adjust its position.



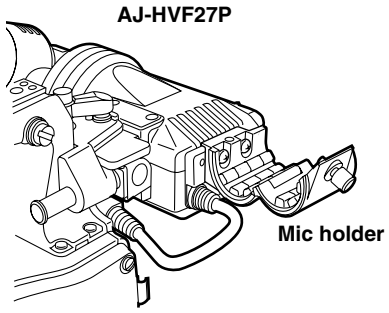
4 Tighten the lever for securing the viewfinder in the back/front and sideways directions until it locks the viewfinder in place.



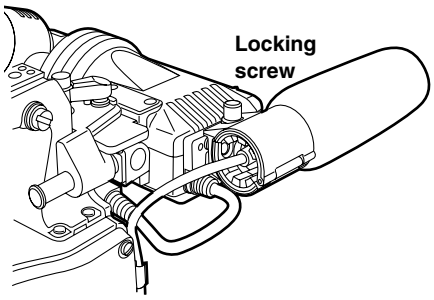
When attaching a microphone to the viewfinder (optional accessory) for use

The microphone of the AJ-MC700P mic kit (optional accessory) can be attached to the viewfinder.

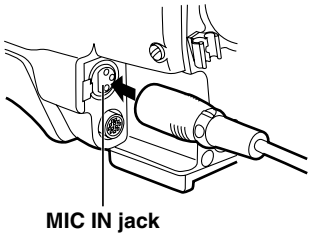
1 Open the mic holder.



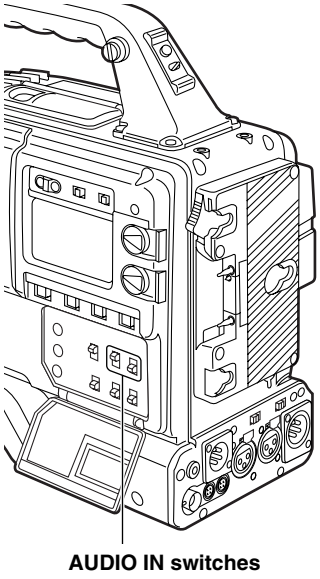
2 Attach the microphone, and tighten the locking screw.



3 Connect the microphone's connecting cable to the MIC IN jack on the camera.



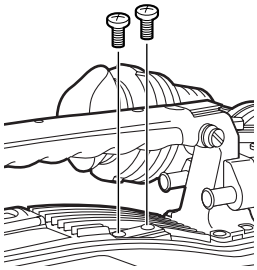
4 Set the AUDIO IN switch or switches to "FRONT" in accordance with the audio channel or channels whose sound is to be recorded.



When attaching a microphone to the main unit for use

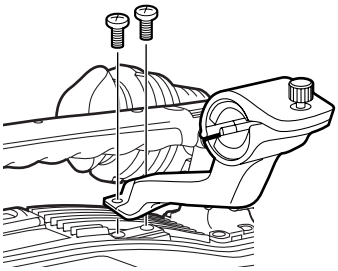
Attaching the AJ-MH700P mic holder (optional accessory)

1 Remove the screws used to attach the mic holder.



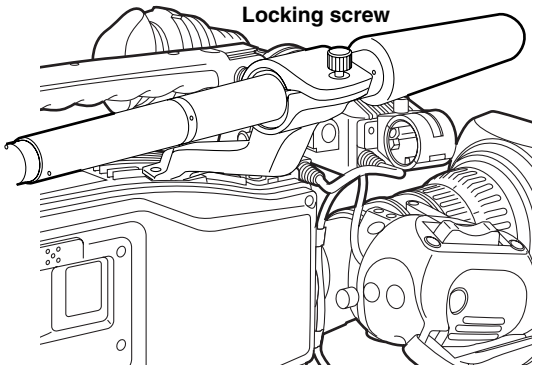
2 Attach the mic holder to the main unit using the screws provided with the AJ-MH700P mic holder.

Screws provided with mic holder

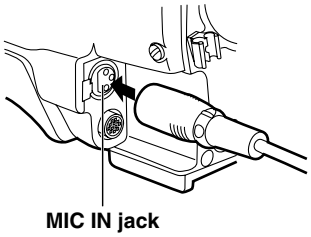


3 Attach the microphone to the mic holder, and tighten the locking screw.

Locking screw

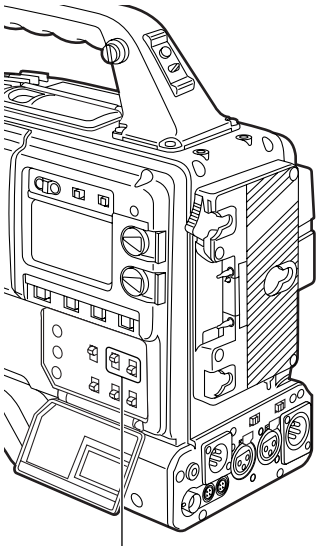


4 Connect the microphone's connecting cable to the MIC IN jack on the camera.



MIC IN jack

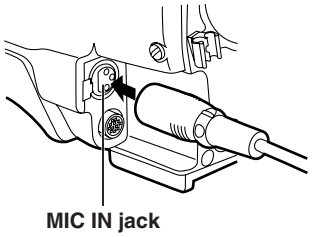
5 Set the AUDIO IN switch or switches to "FRONT" in accordance with the audio channel or channels whose sound is to be recorded.



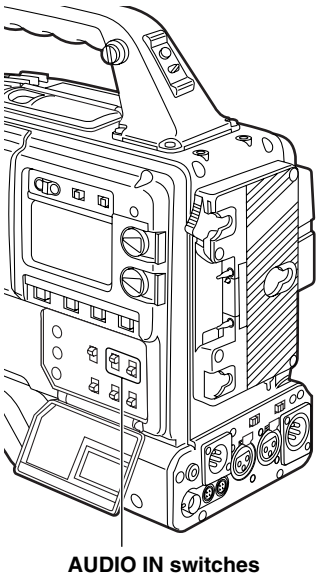
AUDIO IN switches

When connecting a microphone to the MIC IN jack

1 Connect the microphone's connecting cable to the MIC IN jack on the camera.



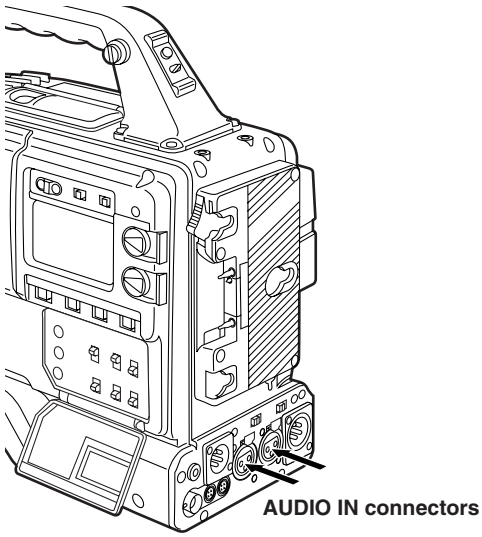
2 Set the AUDIO IN switch or switches to "FRONT" in accordance with the audio channel or channels whose sound is to be recorded.



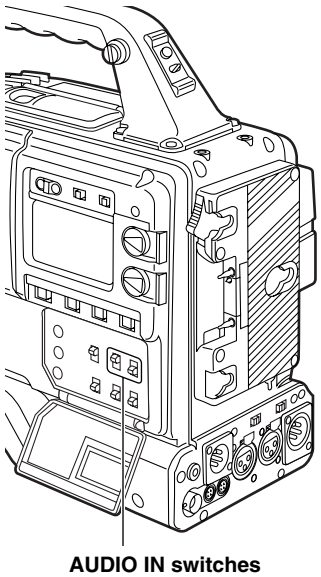
<Note>
When extending the microphone's connecting cable, use a cable which supports the phantom power supply system.

When connecting a microphone to the AUDIO IN connector

1 Connect the microphone's connecting cable to the AUDIO IN connector on the camera.
Two microphones can be connected to the CH1 and CH2 connectors.



2 Set the AUDIO IN switch or switches for the channel or channels to which the microphone or microphones have been connected to "REAR."



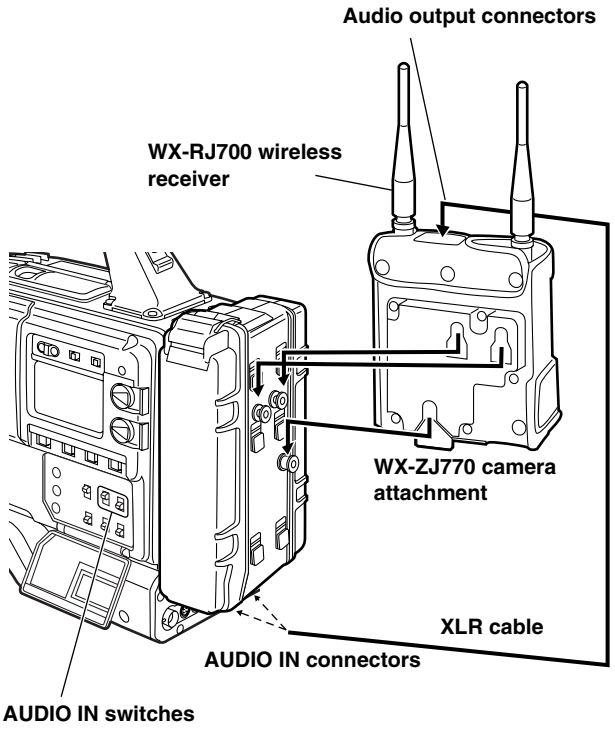
<Note>
When the LINE/MIC/+48V selector switch is set to "+48V," the phantom power supply system is supported.

When using a wireless microphone

Attach the WX-RJ700 wireless receiver when Panasonic's wireless system is to be used.

1 Attach the WX-RJ700 wireless receiver to the WX-ZJ770 camera attachment.

2 Align the grooves in the camera attachment with the pins on the battery case, etc. to attach the wireless receiver.



3 Connect the AUDIO IN connectors on the camera with the wireless receiver using the XLR cable.

4 Set the AUDIO IN switch or switches for the channel or channels to which the XLR cable has been connected to "REAR."

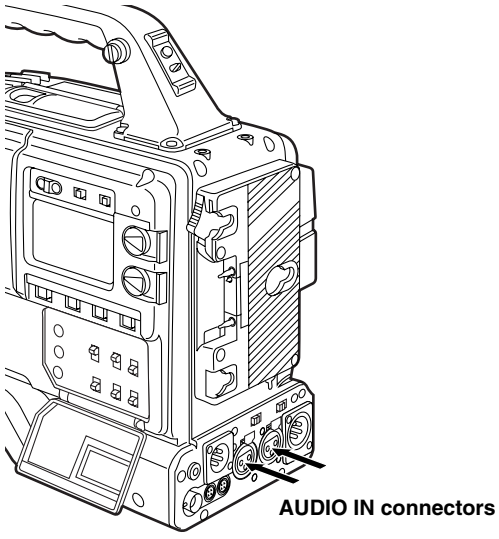
5 Set the LINE/MIC/+48V selector switch on the rear panel to "MIC."

When detaching the wireless receiver, push up the lever on the bottom panel of the camera attachment to disengage it.

<Note>
For details on the operations and other aspects of the WX-RJ700 wireless receiver, refer to the operating instructions which accompany the receiver.

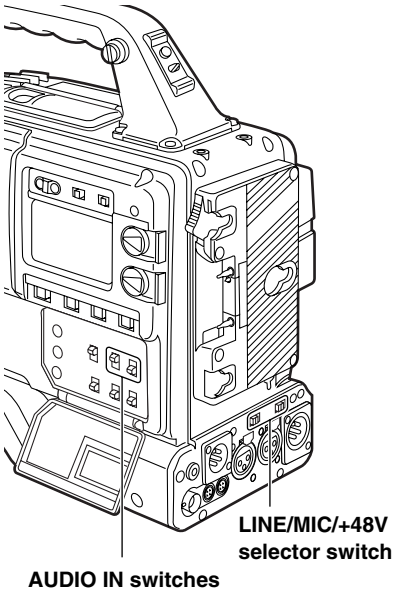
When connecting audio components

1 Connect the AUDIO IN connectors on the camera with the audio component using the XLR cable.



2 Set the AUDIO IN switch or switches for the channel or channels to which the microphone or microphones have been connected to "REAR."

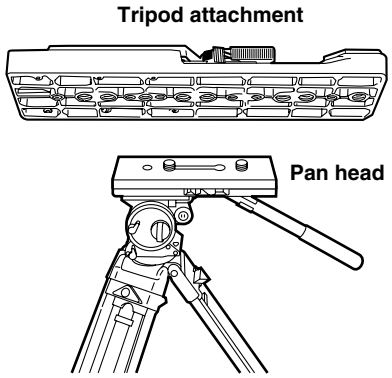
3 Set the LINE/MIC/+48V selector switch on the rear panel to "LINE."



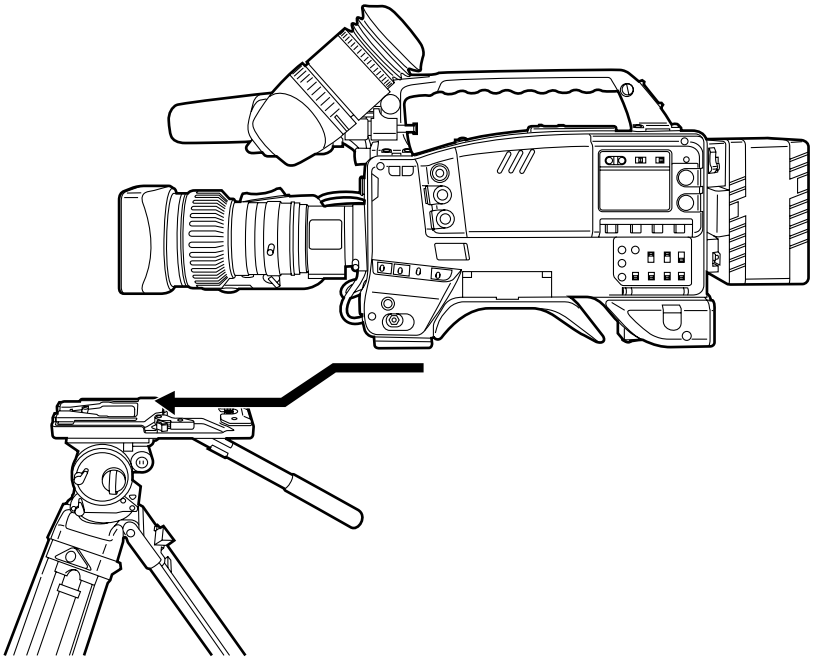
Mounting the unit on a tripod

Use the tripod attachment available as an optional accessory for mounting the unit onto a tripod.

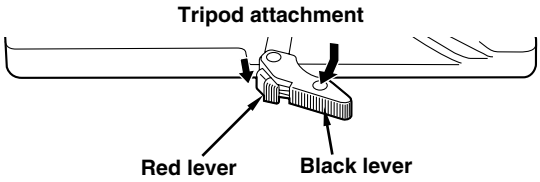
1 Attach the tripod attachment to the tripod.
<Note>
Select the attachment holes that best support the center of gravity of the unit and tripod attachment.
Check that the diameters of the selected holes match the diameters of the pan head.



2 Attach the camera to the tripod attachment.
Slide the camera toward the front along the grooves until it clicks into place.



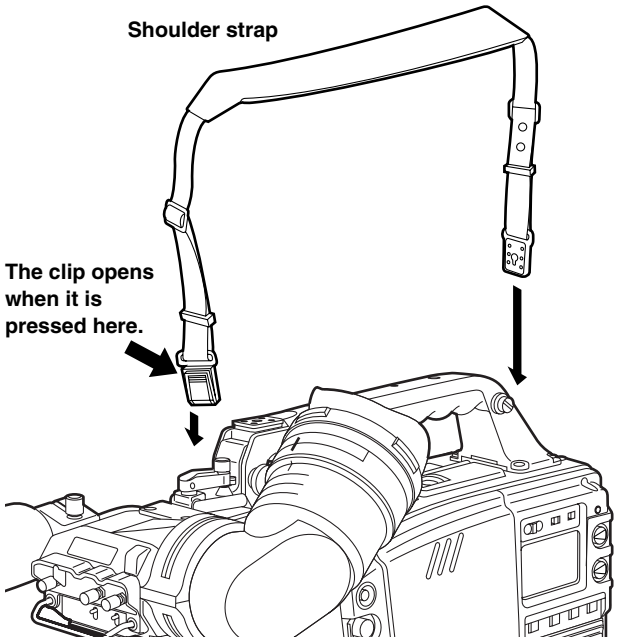
Detaching the unit from the tripod attachment
While pressing the red lever, move the black lever in the direction of the arrow, slide the unit toward the rear, and detach it.



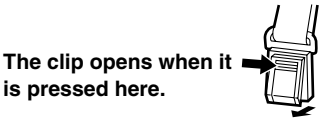
<Note>
If the pins in the tripod attachment fail to return to their original positions after the camera has been detached, press the red lever again and at the same time move the black lever in the direction of the arrow: this will return the pins to their original positions.
Bear in mind that the camera cannot be attached while the pins are left in the center.

Attaching the shoulder strap

1 Attach the shoulder strap to the shoulder strap mounting hooks, and adjust the length of the strap.
<Note>
Check that the shoulder strap is securely fastened.



To detach the shoulder strap, open the clips on the mounting parts and detach.



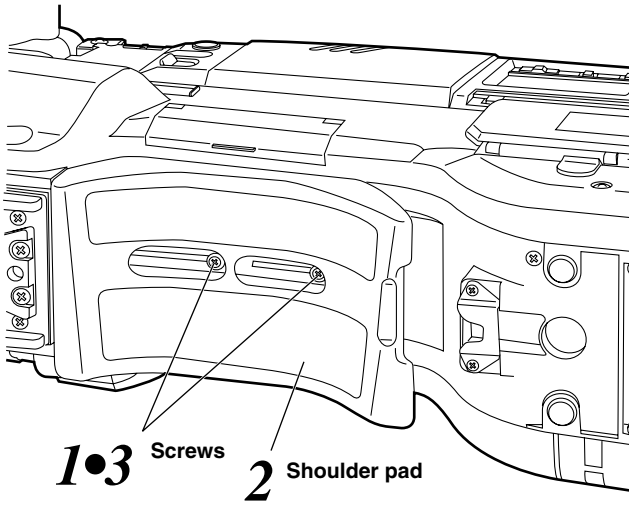
Adjusting the shoulder pad position

The shoulder pad can be slid up to 15 mm either backward or forward from the center position (factory setting).
Adjust the pad's position to operate the unit with the optimum ease.

1 Loosen the two screws.

2 Slide the shoulder pad either backward or forward, and find the optimum position.

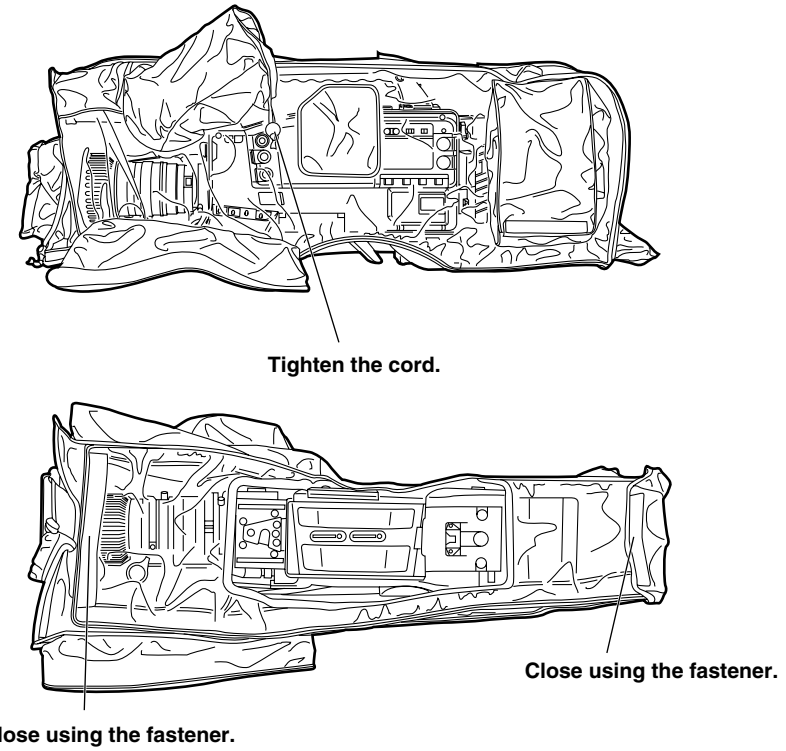
3 Tighten the screws to secure the shoulder pad.



Bottom section

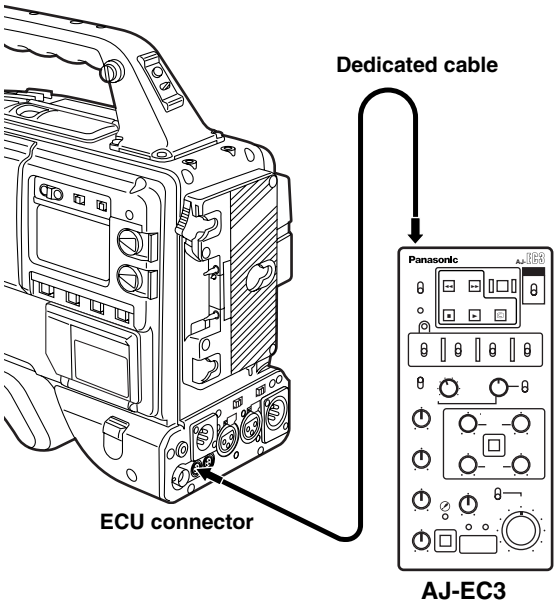
Attaching the rain cover

Example showing use of the SHAN-RC700 rain cover



Connecting the extension control unit

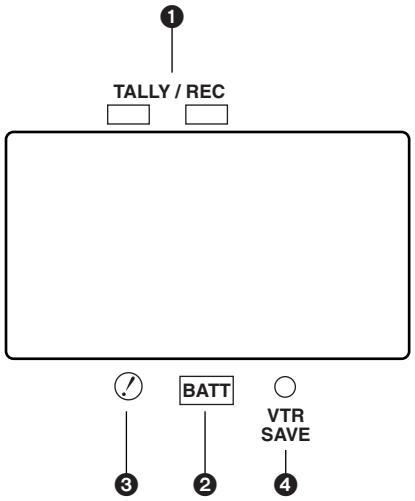
By connecting the AJ-EC3 extension control unit (optional accessory), some of the functions can be operated by remote control.
When the AJ-EC3 is connected and the POWER switches on the unit and AJ-EC3 are set to ON, the unit is automatically set to the remote control mode.



<Notes>

- Before connecting or disconnecting the dedicated cable, be absolutely sure to set the POWER switches on the unit and AJ-EC3 to OFF.
- When “OFF” has been selected as the ECU DATA SAVE setting on the CAMERA SW MODE screen of CAM MENU, all the adjustments and settings made using the AJ-EC3 will be cleared when the unit’s power switch is set to OFF. Neither is it possible to save these adjustments and settings on a setup card.
  However, the menu item settings can be saved on a setup card.
  When the AJ-EC3 is connected again, its settings will be restored.
- When “ON” has been selected as the ECU DATA SAVE setting on the CAMERA SW MODE screen of CAM MENU, all the adjustments and settings made using the AJ-EC3 will not be cleared even when the unit’s power switch is set to OFF.

Viewfinder lamp displays



Viewfinder pictured here is the AJ-HVF27P
(For details concerning the viewfinder, refer to the operating intructions of the viewfinder.)

❶ TALLY/REC (recording) lamp

This lights up (red) during recording. It flashes when a problem has occurred.

For details, refer to the section on the “Warning system” (pages 105, 106).

❷ BATT (battery) lamp

This starts flashing when the battery voltage has dropped to the level where the battery will no longer be usable in several minutes’ time, and it lights when the battery is no longer usable. To prevent operation from being interrupted, replace the battery before the battery has discharged completely.

For details, refer to the section on the “Warning system” (pages 105, 106).

❸ ⍰ (abnormal operating status warning) lamp

This lights when the unit is set to an abnormal operating status for any of the items set to “ON” on the “!LED” screen of the setting menu.

For details on selecting the items targeted for the ⍰ lamp display, refer to the section on “Setting the ⍰ lamp displays” (next page).

❹ VTR SAVE (VTR power-saving) lamp

This lights when the VTR SAVE/STBY switch is set to SAVE. It goes off during recording.

<Note>

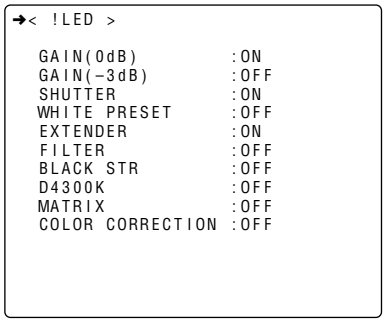
In the rec pause mode, the SAVE mode is established automatically, and the lamp lights after the time set for the pause timer (temporary stop time) has elapsed.

After two minutes in the play pause mode, the SAVE mode is established automatically, and the lamp lights.

Setting the ⓘ lamp displays

Select the items targeted for the ⓘ lamp display on the “!LED” screen of the CAM MAIN MENU 2 screen. (Under the factory settings, the “!LED” screen is not displayed.)
To perform operations on the “!LED” screen, either switch the unit to the engineer mode menu or select the “!LED” screen on the CAM USER MENU SELECT 2 screen under the CAM MAIN MENU 4 screen.
<Note>
For details on selecting the engineer mode menu and display screens, refer to “Menu operations” (pages 70 to 72).

1 Perform the menu operations (pages 70 to 72) to open the “!LED” screen.



2 Turn the JOG dial button to move the arrow (cursor) to the desired item.

3 For the selected item, press the JOG dial button, and set whether or not the item is to be displayed on the viewfinder screen.
Turn the JOG dial button, select display (ON) or no display (OFF) and press the JOG dial button to enter the selection.

4 Repeat steps ***2*** and ***3*** to set ON or OFF for the other items.

5 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

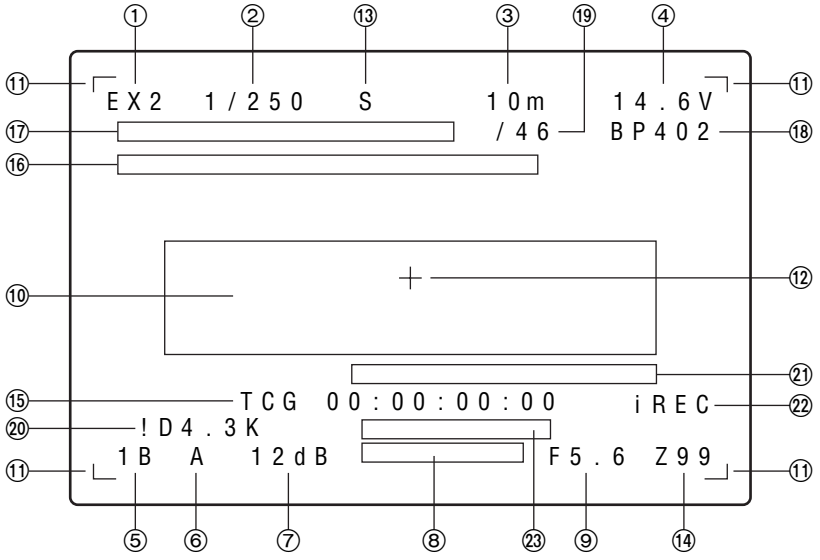
Setting item	Description of setting
GAIN (0 dB)	Lamp display appears when the gain is set to a value other than “0 dB.”
GAIN (–3 dB)	Lamp display appears when the gain is set to a value other than “–3 dB.”
SHUTTER	Lamp display appears when the SHUTTER switch is at ON.
WHITE PRESET	Lamp display appears when “PRST” applies to the channel in the white balance memory.
EXTENDER	Lamp display appears when the lens extender is used.
FILTER	Lamp display appears when the filter is set to a value other than “3200 K.”
BLACK STR	Lamp display appears when the black stretch is at ON.
D4300 K	Lamp display appears when the white balance presetting is 4300 K.
MATRIX	Lamp display appears when the matrix is at ON.
COLOR CORECTION	Lamp display appears when the color correction is at ON.

Viewfinder screen status displays

In addition to the pictures shot, the unit's settings and messages indicating its operating statuses are displayed on the viewfinder screen. The center marker and safety zone markers also appear.
The items which have been set to ON by the switches relating to the viewfinder displays or the VF DISPLAY screen of the setting menu are displayed at the top and bottom of the screen.
When settings have been changed or adjustments have been made, messages advising the user of what has been set, what progress has been made in the adjustments and what the adjustment results are can be displayed for about 3 seconds.

■ Display items and where they are displayed

① Extender display
② Shutter speed/mode display
③ Remaining tape display
④ Battery voltage display
⑤ Filter display
⑥ White balance memory display
⑦ Gain display
⑧ Audio level display
⑨ Aperture display
⑩ Camera warning/information display
⑪ Safety zone markers
⑫ Center marker
⑬ Super iris ON display
⑭ Zoom position display
⑮ TCG display
⑯ Master gain setting display
⑰ Color temperature display PRE/A/B
⑱ Battery type
⑲ Total tape length
⑳ Preset color temperature display
㉑ VTR warning/information display
㉒ Interval recording mode display (flashing)
㉓ AUDIO CH1/CH2 input display



Viewfinder screen status displays

① Extender display
This appears when the lens extender is being used.

② Shutter speed/mode display
This indicates the shutter speed or shutter mode setting.
- **OFF (no display):**
  The shutter is not used.
- **1/100, 1/120, 1/250 1/500, 1/1000, 1/2000:**
  Shutter speeds (sec.) in the standard mode
- **1/60.0 to 1/251.3 (SYNCHRO SCAN):**
  Selection of synchro scan mode

③ Remaining tape display
During recording, this shows the remaining tape (in minutes) in the VTR. When less than two minutes of tape remain, the figure starts flashing.

④ Battery voltage display
This indicates the battery voltage (V) during operation. The voltage is displayed as a percentage when a digital battery is used.

⑤ Filter display
This indicates the type of filter selected.

⑥ White balance memory display
This indicates the automatic adjustment memory selected for the white balance.
A: The WHITE BAL switch has been set to "A."
B: The WHITE BAL switch has been set to "B."
P: The WHITE BAL switch has been set to "PRST."

⑦ Gain display
This indicates the gain (dB) of the video amplifier which was set using the GAIN switch.

⑧ Audio level display
This indicates the audio level (which can be displayed separately for audio CH1 and CH2).
During sine wave input, it roughly corresponds with the VTR's level meter as shown below.

Audio level display	—	—	—	—	—	—	—	+
VTR's level meter	-40	-30	-25	-18/20	-15	-10	-5	0

⑨ Aperture display
This indicates the approximate aperture setting (F number).
<Note>
This appears when a lens with an aperture display function is being used.

⑩ Camera warning/information display
The black balance, white balance, auto knee function, super iris, super gain and other alarm displays and warnings appear here.

⑪ Safety zone markers
These indicate the 80% or 90% (factory setting) range of the surface area of the viewfinder screen.
The display range proportion is set on the VF DISPLAY screen of the setting menu.
For details, refer to "Setting the marker displays" (page 44).

⑫ Center marker
This indicates the center of the viewfinder screen. The display is set ON or OFF on the VF DISPLAY screen of the setting menu.

⑬ Super iris ON display
"S" appears when the super iris is ON.

⑭ Zoom position display
The distance from the WIDE end to TEL end of the zoom lens is indicated here as a number from 0 to 99.

⑮ TCG display
This indicates the time code generator value.

⑯ Master gain setting display
The GAIN L/M/H values currently set appear here when the MODE CHECK button is pressed.

⑰ Color temperature display PRE/A/B
This indicates the color temperature when AWB is executed using white balance memory A or B.

⑱ Battery type
This indicates the type of battery selected.

⑲ Total tape length
This indicates the total length of the cassette tape.

⑳ Preset color temperature display
This indicates the preset white balance value.

㉑ VTR warning/information display
Alarm displays such as SLACK, REC WARNING, HUMID, SERVO and RF as well as other warnings are indicated here.

㉒ Interval recording mode display (flashing)

㉓ AUDIO CH1/CH2 input display
The input signals to be recorded in audio channels 1 and 2 are indicated here.

Selecting the display items

The items to be displayed on the viewfinder screen can each be set to ON or OFF on the “VF INDICATOR” screen of the CAM MENU or on the “VTR VF INDICATOR” screen of the VTR MENU.

Selectable items

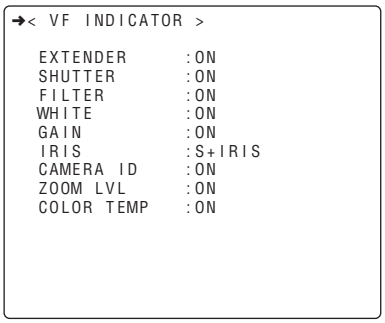
On the “VF INDICATOR” screen of CAM MENU

- Extender display (EXTENDER)
- Shutter speed/mode display (SHUTTER)
- Filter display (FILTER)
- White balance memory display (WHITE)
- Gain display (GAIN)
- Aperture value and super iris ON display (IRIS)
- Camera ID display (CAMERA ID)
- Zoom position display (ZOOM LVL)
- Color temperature display (COLOR TEMP)

  <Note>

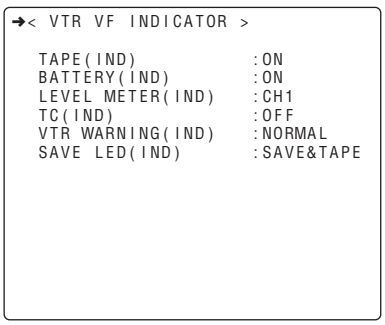
  The camera ID appears when color bar signals are to be recorded in accordance with the OUTPUT/AUTO KNEE switch setting.

  For details, refer to “Setting the camera ID” (page 44).



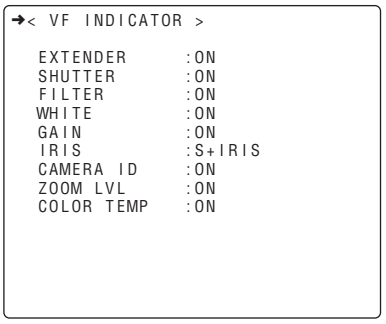
On the “VTR VF INDICATOR” screen of VTR MENU

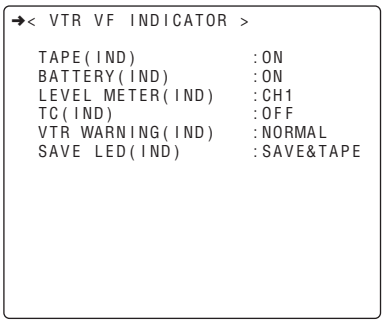
- Remaining tape display (TAPE)
- Remaining battery charge display (BATTERY)
- Level meter display (LEVEL METER)
- Time code display (TC)
- VTR warning display (VTR WARNING)
- SAVE lamp display (SAVE LED)



Selecting the display items

1 Perform the menu operations (pages 70 to 72) to open the “VF INDICATOR” screen.





2 Turn the JOG dial button to move the arrow (cursor) to the desired item.

3 For the selected item, press the JOG dial button, and set whether or not the item is to be displayed on the viewfinder screen.

Turn the JOG dial button to select display (ON) or no display (OFF), and press the JOG dial button to enter the selection.

4 Repeat steps ***2*** and ***3*** to set ON or OFF for other items.

5 Press the MENU button to exit the menu operations.

The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

Display modes and setting change messages

The display of messages advising the user of what changes have been made to the settings and what the adjustment results are can be turned off for some or all of the items displayed.

Setting change/adjustment result messages and display modes

Situation in which message is displayed	Message	Display mode setting		
		1	2	3
When the filter selection has been changed	Filter: n (n=1, 2, 3, 4), m (m=A, B, C, D)	×	×	○
When the gain setting has been changed	GAIN: n dB (n= –6, –3, 0, 3, 6, 9, 12, 18, 24, 30)	×	×	○
When the WHITE BAL switch setting has been changed	WHITE: n (n=ACH, BCH, PRESET)	×	×	○
When the OUTPUT/AUTO KNEE switch has been set to AUTO KNEE or OFF **<Note>** This display is shown for about 3 seconds immediately after the unit's power has been switched on.	AUTO KNEE: ON (or OFF)	×	○	○
When the shutter speed/mode setting has been changed	SS: 1/100 (or 1/120, 1/250, 1/500, 1/1000, 1/2000, S.SCAN)	×	○	○
When the white balance (AWB) has been adjusted	Example) AWB: OK For details, refer to "Adjusting the white balance" (pages 47 to 50).	×	○	○
When the black balance (ABB) has been adjusted	Example) ABB: OK For details, refer to "Adjusting the black balance" (page 51).	×	○	○

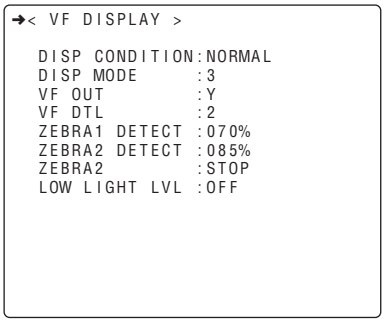
○ : Message is to be displayed.
× : Message is not to be displayed.

<Note>
The message displays also depend on the status of other menu settings. For instance, even when "1 (no display)" is set as the filter selection, the filter selection will be displayed when FILTER is set to "ON" on the VF INDICATOR screen.

Switching the display mode

The display mode settings are switched on the VF DISPLAY screen.

1 Perform the menu operations (pages 70 to 72) to open the “VF DISPLAY” screen.



2 Turn the JOG dial button to move the arrow (cursor) to the “DISP MODE” item.

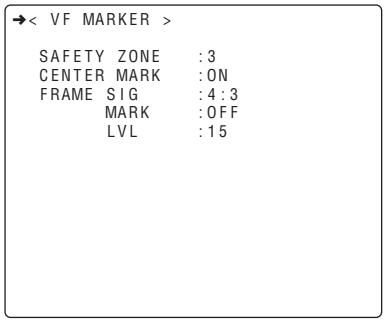
3 Press the JOG dial button, and set the desired display mode.
Turn the JOG dial button to select the display contents, and press the JOG dial button to enter the selection.

4 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

Setting the marker displays

The center marker and safety zone marker displays are set on the VF MARKER screen.

1 Perform the menu operations (pages 70 to 72) to open the “VF MARKER” screen.



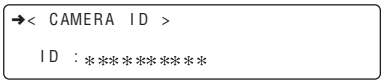
2 Perform the same operations as for the “VF DISPLAY” screen to set each item.

Setting the camera ID

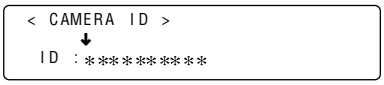
The camera ID is set on the CAMERA ID screen.
Up to ten alphanumerics, symbols and spaces can be used.

<Note>
The camera ID is not displayed while the setting menu is displayed even if color bar signals are output.

1 Perform the menu operations (pages 70 to 72) to open the “CAMERA ID” screen.



2 Turn the JOG dial button to move the arrow (cursor) to the ID item.



3 When the JOG dial button is pressed, the arrow (cursor) flashes, and the input mode is established.

4 Turn the JOG dial button until the character to be set appears. When the button is turned, the character displayed is switched in the following sequence:

Space: □
⬇
letters: A—Z
⬇
numbers: 0—9
⬇
symbols: ’, >, <, /, –

5 Press the JOG dial button to enter the character.

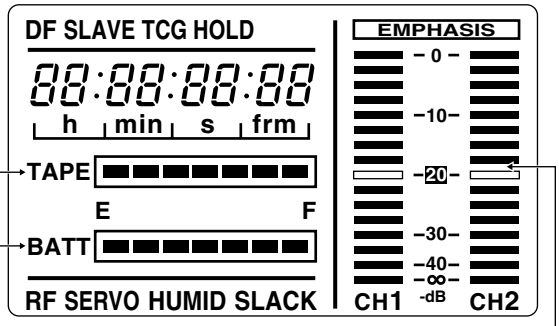
6 Turn the JOG dial button to move the arrow (cursor) to the next position (right), and repeat steps ***3*** to ***5*** to set the characters.

7 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

<Note>
The camera ID is recorded at the same time as the color bar signals if “CAMERA ID” on the VF INDICATOR screen has been set to “ON.”

Remaining battery charge and audio channel level and remaining tape displays

Remaining tape display
When there are 21 or more minutes of the tape remaining, all 7 segments up to the "F" position light.
When there are less than 21 minutes of the tape remaining, the segments go out one by one in sequence every 3 minutes.

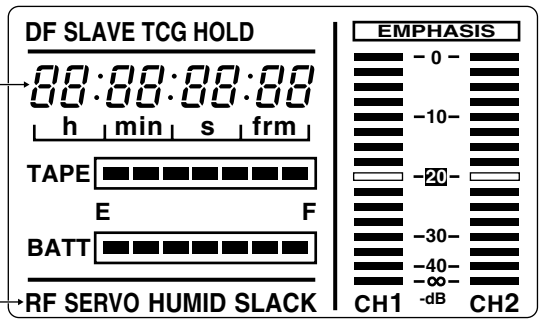


Remaining battery charge display
If a battery with a digital display (% display) is used, all 7 segments up to the "F" position light when the 70% or more of the battery charge remains.
When there is less than 70% of the battery charge remaining, the segments go out one by one in sequence every time the remaining charge drops by 10%.

Audio channel level meter

Displays relating to errors and warnings

Error code display

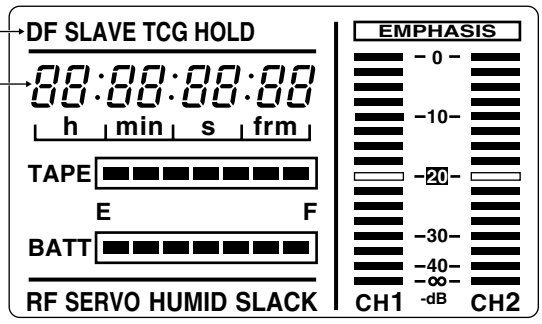


Warning displays
RF : Clogged video head
SERVO: Servo disturbance
HUMID : Formation of condensation on the head drum
SLACK: Problem in tape take-up

For details, refer to "Warning system" (pages 105 and 106).

Displays relating to time codes

These displays light for the time code, CTL and actual time
DF : Drop frame mode
SLAVE : External locking of the time code
HOLD : Time code generator in the hold mode (when the HOLD button has been pressed)



Time counter display
This displays the time code, CTL, user's bit and actual time. For the correlation between the items displayed and the switches, refer to the next section.

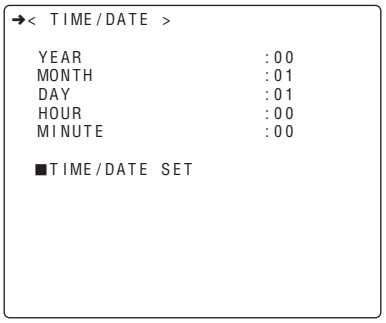
Time code-related switch settings and display items

TCG switch position	DISPLAY switch position	Display item
SET	TC or CTL	Time code
	UB	User's bit
F-RUN or R-RUN	CTL	CTL
	TC	Time code
	UB	User's bit

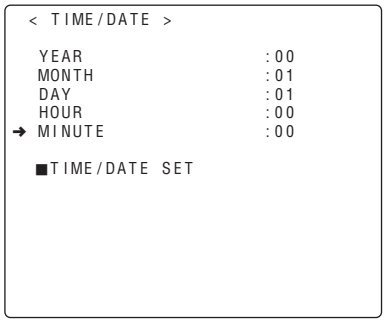
<Note>
If the HOLD button is pressed while the DISPLAY switch is set to UB, "HOLD" on the counter display will flash for as long as the switch is held down, and the VITC user's bit information recorded in the video AUX area will appear on the counter display.

Adjustments and setup using the setting menus

1 Perform the menu operations (pages 70 to 72), and display the “TIME/DATE” screen.

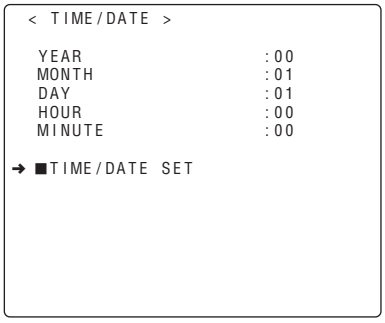


2 Turn the JOG dial button to select the item to be changed, and press the JOG dial button.



3 Turn the JOG dial button to change the setting, and press the JOG dial button to enter the setting.

4 When the settings are completed, press the JOG dial button to select ■ TIME/DATE SET, and press the JOG dial button.



5 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

<Note>
The seconds cannot be set. The time always advances from 0 seconds.

Adjusting the white balance

A better picture can be achieved by adjusting the white balance and black balance in the following sequence: AWB (white balance adjustment) ➧ ABB (black balance adjustment) ➧ AWB.
There is usually no need to re-adjust the black balance even when the power has been turned off and back on.
The white balance must always be re-adjusted when the lighting conditions have changed.
If the display mode is set to “2” or “3,” messages advising the user of what progress has been made in the adjustments and what the adjustment results are appear on the viewfinder screen when the black balance or white balance adjustment is commenced. Set the display mode to “1” if these messages are not to be displayed.

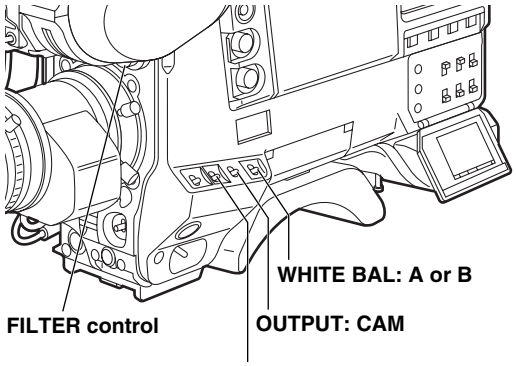
- For details on the display mode settings, refer to “Display modes and setting change messages” (page 43).

<Notes>

- ABB must be performed when the MASTER GAIN levels have been changed on the LOW SETTING, MID SETTING and HIGH SETTING screens of the CAM MENU, when the super gain setting has been changed using the USER button, and when the GAMMA (ON/OFF) has been switched on the CAMERA SETTING screen.
- With artificial lighting—particularly fluorescent lights and mercury lamps—the luminance may appear to be constant but the intensity of the R, G and B colors will change in synchronization with the power line frequency. Especially in regions with a 50 Hz power line frequency, mutual interference arises between the vertical sync frequency (approx. 60 Hz) of this unit and lighting frequency (50 Hz). As a result, the hue tends to change with the passage of time or flickering occurs, making it impossible to achieve a proper white balance.
  It is recommended that the white balance be achieved using the settings shown in the table below.

Power line frequency	Shutter speed
50 Hz	1/100
60 Hz	OFF

1 Set the switches as shown in the figure.



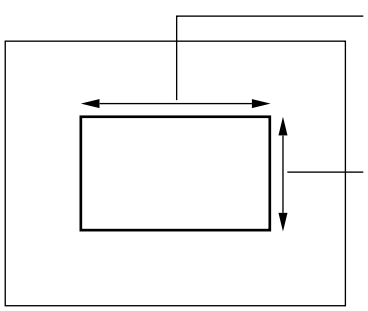
When the GAIN and WHITE BAL switch settings are changed, messages advising the user of the set positions appear on the setting change message display of the viewfinder screen. (However, this happens only when “3” has been set as the display mode.)

2 Select the FILTER control setting in accordance with the lighting conditions.

- For examples of the FILTER control settings, refer to the description of the FILTER control (page 13) in the “Shooting (recording)/playback function section.”
  When the FILTER control setting is changed, a message advising the user of the set positions appears on the setting change message display of the viewfinder screen. (However, this happens only when “3” has been set as the display mode.)

Adjusting the white balance

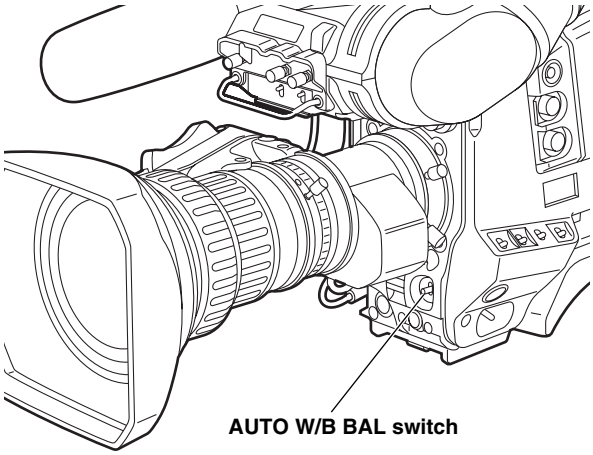
3 Erect a white pattern at a place with the same conditions as the source of light illuminating the subject, zoom in, and shoot the white of the pattern on the screen.
A white object (such as a white cloth or white wall) near the subject may be used as a substitute for the white pattern.
The size of the white object required is shown in the figure below.



<Note>
Take care to keep high-brightness spots off the screen.

4 Adjust the lens aperture.

5 Set the AUTO W/B BAL switch to AWB, and then release it.
The switch returns to the center, and the white balance is automatically adjusted.



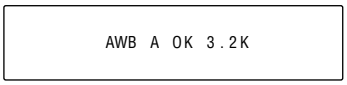
<Note>
When the AUTO W/B BAL switch is pressed again to the AWB side when the white balance is being adjusted automatically (AWB ACTIVE), the adjustment operation will stop.
The adjusted value in this case is the value before automatic adjustment was performed.

6 While the adjustment is in progress, the following message appears on the viewfinder screen (but only when “2” or “3” has been set as the display mode).



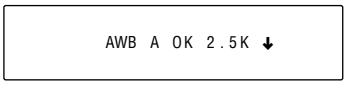
Message appearing while the adjustment is in progress

7 Adjustment is completed in several seconds. (A message similar to the one shown in the figure now appears.)
The adjustment value is automatically saved in the memory (A or B) which was set in step 1.

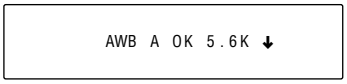


Message appearing upon completion of the adjustment

8 A message such as the following appears if the color temperature of the subject is lower than 2500 K or higher than 5600 K.
The downward pointing arrow indicates that the color temperature is lower than the display temperature; conversely, the upward pointing arrow indicates that the it is higher than the display temperature.



When the color temperature is lower than 2500 K



When the color temperature is higher than 5600 K

<Note>
When a zoom lens with an automatic aperture function is used, aperture hunting may occur. Adjust the aperture’s gain control (marked as IG, IS, S, etc.) provided with the lens.
For details, refer to the operating instructions which accompany the lens.

Hunting:
The auto iris response is repeated, causing the brightness levels of the image to become inconsistant.

Adjusting the white balance

When the white balance cannot automatically be adjusted

An error message appears on the viewfinder screen (when “2” or “3” has been set as the display mode).

Messages relating to white balance adjustment

Error message	Meaning	Recommended action
COLOR TEMP. HIGH	Color temperature is too high.	Select a suitable filter.
COLOR TEMP. LOW	Color temperature is too low.	Select a suitable filter.
LOW LIGHT	There is not enough light.	Increase the amount of light or increase the gain.
LEVEL OVER	There is too much light.	Reduce the amount of light or reduce the gain.
UNSTABLE CONDITION	The shooting conditions are unstable (shooting under fluorescent light, unstable camera posture, etc.).	If flickering is to blame, install the shutter, and stabilize the shooting conditions.

When any of the error messages listed above is displayed, take the recommended action, and try adjusting the white balance again.
If the error message persists even after repeated attempts, consult your dealer.

<Notes>

On rare occasions, AWB cannot be adjusted and a NG display appears. In a case like this, adjust AWB again.

When there is no time to adjust the white balance

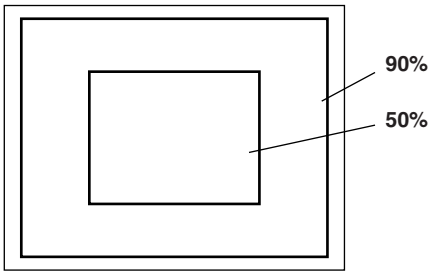
Set the WHITE BAL switch to PRST. The white balance for the filter is achieved in accordance with the setting position of the FILTER control (outer).

White balance memories

There are two sets of white balance memories, A and B.
When the FILTER INH setting on the CAMERA SW MODE screen of CAM MENU is ON (default setting), the number of memories for set A and set B is limited to one each. In this case, the memory contents are not coupled with the filter.
When FILTER INH is set to OFF, the adjustment values for each filter can be automatically saved in the memories corresponding to the WHITE BAL switch settings (A or B). This unit contains four filters so that a total of 8 (4×2) adjustment values are saved.

White balance search area

It is possible to set the white balance search area to either 90% or 50% by changing the AWB AREA setting on the OPTION screen of the CAM MENU.



Adjusting the white balance

When FILTER INH is set to ON

When AWB is adjusted, the color temperature and filter number applying at the time are displayed.
If the filter is then turned, the color temperature and filter number are displayed.
The white balance is almost fully adjusted if the subject is illuminated at a color temperature approaching the one displayed.

(Example of display)

```
AWB A OK 3.2K
```

AWB is adjusted using subject filter (B) with a lighting color temperature of 3200 K.

⬇

The filter is changed to filter (C)

⬇

```
4.3K(B)
```

“4.3 K (B)” is displayed.
(1): This indicates that AWB was adjusted using the filter.

⬇

If the color temperature of the subject in this state is near 4.3 K, the white balance is right and so the camera can be used.

⬇

The filter (B) is restored.

⬇

```
3.2K(B)
```

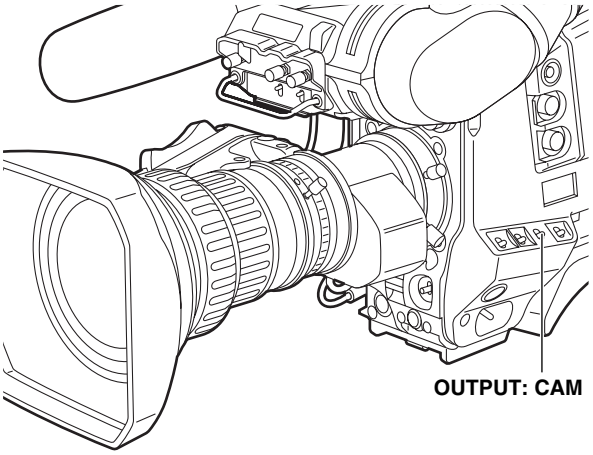
“3.2 K (B)” is displayed, and the status when AWB was first adjusted is indicated.

Adjusting the black balance

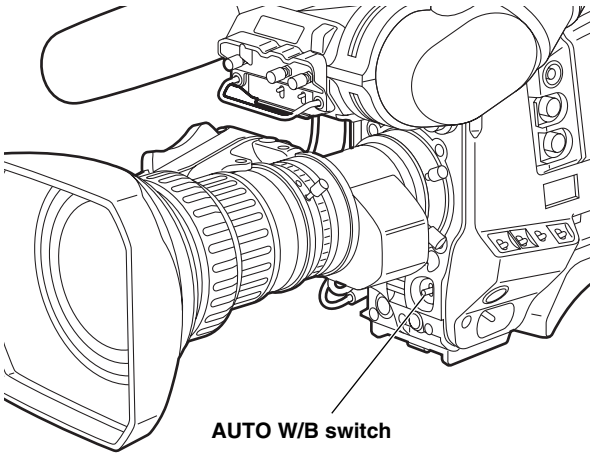
The black balance needs to be adjusted in the following cases:

- When the unit is used for the first time
- When the unit is used after it has not been used for a prolonged period of time
- When the unit is used in an ambient temperature which has fluctuated significantly
- When the value selected for the gain switch has been changed
- When the super gain setting has been performed using the USER button
- When the gamma ON/OFF setting has been changed

1 Set the switches as shown in the figure.



2 Set the AUTO W/B BAL switch to the ABB position, and then release it.
The switch returns to the center, and the adjustment is performed.



3 While the adjustment is in progress, the following message appears on the viewfinder screen (but only when “2” or “3” has been set as the display mode).
<Note>
While the adjustment is in progress, the lens aperture is automatically set to CLOSE.

```
ABB ACTIVE
```

Message appearing while the adjustment is in progress

4 Adjustment is completed in several seconds. (A message similar to the one shown in the figure now appears.)
The adjustment value is automatically saved in the memory.

```
ABB OK
```

Message appearing upon completion of the adjustment

<Notes>

- Check that the lens connector has been connected and that the lens aperture is set to CLOSE.
- While the black balance is being adjusted, the aperture is automatically set to the light-shielding status.
- While the black balance is being adjusted, the gain selector circuit is switched automatically.
  Flicker or noise may appear on the viewfinder screen, but this is not indicative of malfunctioning.
- If black shading is not satisfactory even with ABB OK, open the BLACK SHADING screen of CAM MAIN MENU 4, and adjust the black shading. (Refer to page 91.)
- When the super gain has been set to ON, the black balance is executed at the preset position in the white balance memory.
- When the AUTO W/B BAL switch is pressed again to the ABB side when the black balance is being adjusted automatically (ABB ACTIVE), the adjustment operation will stop.
  The adjusted value in this case is the value before automatic adjustment was performed.

Shutter modes

Available shutter modes and shutter speeds

Mode	Shutter speed	Application
Standard	1/100, 1/120, 1/250, 1/500, 1/1000 and 1/2000 (sec.)	For shooting fast-moving subjects clearly
SYNCHRO SCAN	Between 1/60.0 sec. and 1/251.3 sec.	For shooting in such a way that the horizontal striping is minimized on the monitor screen

<Notes>

- No matter in which mode the electronic shutter is used, the higher the shutter speed, the lower the camera's sensitivity.
- When the aperture is in the automatic mode, it will increasingly open and the depth of focus will become shallower as the shutter speed is increased.

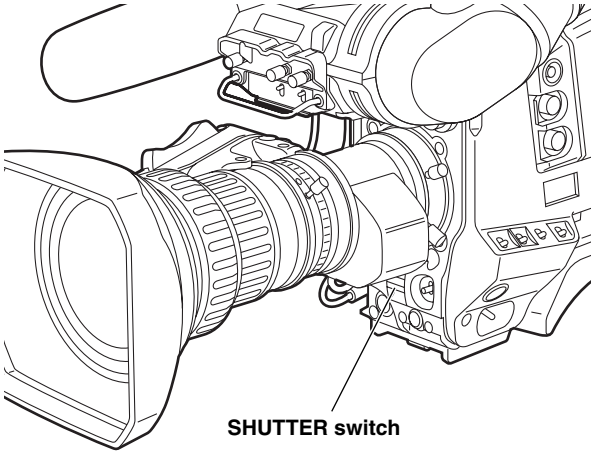
Setting the shutter mode and speed

- The SHUTTER switch is used to set the shutter speed and the shutter speed in the standard mode.
- The shutter speed in the SYNCHRO SCAN mode can easily be changed using the SYNCHRO ("+" and "–") buttons.
- On the SHUTTER SPEED screen of CAM MENU, the setting range of the shutter speed can be restricted to the required range and whether or not to use the special operation mode (SYNCHRO SCAN) can be selected.

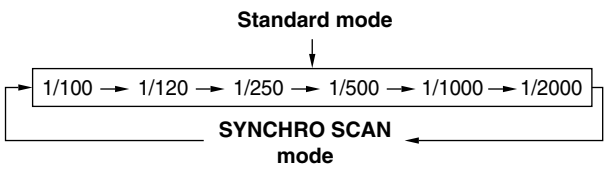
1 Following the steps for "Switching the display mode" (page 44), set DISP MODE to "2" or "3" on the CAM VF DISPLAY screen of CAM MENU.

2 Press the SHUTTER switch from ON to SEL.
The current shutter setting appears on the setting change message display area of the viewfinder screen.

Example: "1/120," "1/61.2," etc.



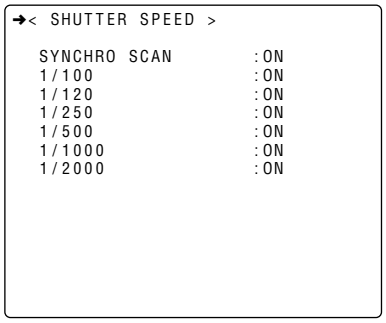
3 Press the SHUTTER switch to the SEL position again, and repeat this until the desired mode or speed is displayed.
When all the modes and speeds are displayed, the display will change in the sequence shown below.
When the required shutter speed and mode have been assigned beforehand, only the assigned speed or mode will be displayed.



Changing the shutter speed and mode selection range

On the SHUTTER SPEED screen of CAM MENU, the setting range of the shutter speed can be restricted to the required range and whether or not to use the special operation mode (SYNCHRO SCAN) can be selected.

1 Perform the menu operations (pages 70 to 72), and display the “SHUTTER SPEED” screen.



2 Turn the JOG dial button to move the arrow (cursor) to the desired item.

3 Press the JOG dial button to set the item to be changed.
Turn the JOG dial button to select ON or OFF, and press the button to enter the setting.

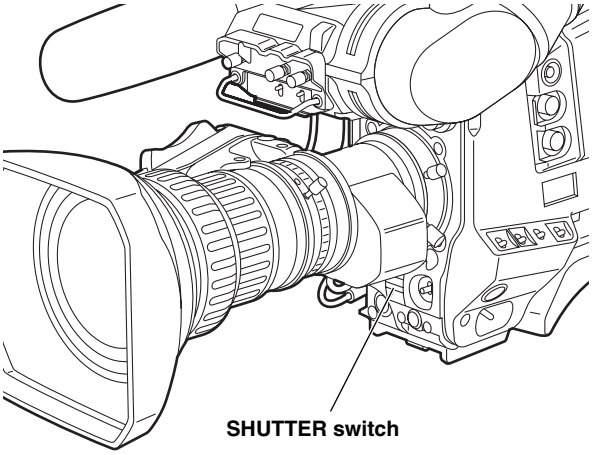
4 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

<Notes>

- When operating the unit from the AJ-EC3 extension control unit (optional accessory), the shutter speed selected by the AJ-EC3 switch will take precedence in determining the actual shutter speed even when operations have been performed on the unit’s SHUTTER SPEED screen.
- For details on selecting the engineer mode and display screens, refer to “Menu operations” (pages 70 to 72).

Setting the synchro scan mode

1 Press the SHUTTER switch from ON to SEL and set to SYNCHRO SCAN.



2 In the SYNCHRO SCAN mode, continuous switching inside the 60.0 Hz to 251.3 Hz range can be achieved by pressing the SYNCHRO (“+” and “–”) buttons.

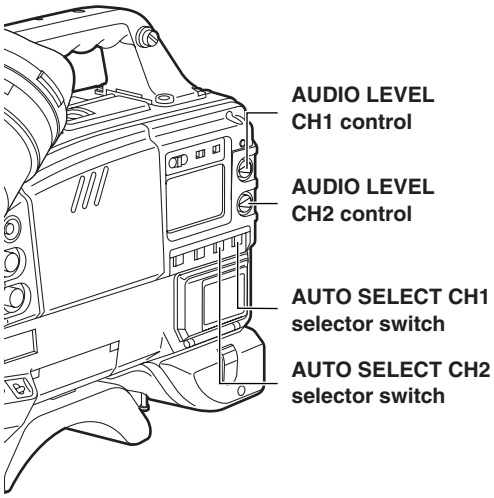
Adjusting the audio level

When the AUTO SELECT CH1 and CH2 selector switches are set to AUTO, the audio CH1 and CH2 input levels are adjusted automatically.
Proceed as follows to adjust the audio channel 1 and 2 levels manually.

Manual audio level adjustments

1 Set the AUTO SELECT CH1 and CH2 selector switches to MAN.

2 Adjust the AUDIO LEVEL CH1 and CH2 controls in such a way that, when audio signals are input, the level meter reading will not exceed 0 dBu even under maximum signal input level conditions.



Limiter

When the audio levels have been adjusted manually, the limiter circuit is tripped by an excessively high input level. This circuit can be turned ON or OFF on the MIC/AUDIO screen of the VTR menu.
(The factory setting is OFF.)

When the user's bit and time code are both to be used, the user's bit is set first.
If the time code is set first, the time code generator will stop while the user's bit is being set so that the time code setting will be off.
The time code setting range extends from 00:00:00:00 to 23:59:59:29.

Setting the user's bit

Setting the user's bit enables information such as memos (dates, times) up to 8 digits in hexadecimal notation to be recorded on the sub code track.

1 Set the DISPLAY switch to UB.

2 Set the TCG switch to SET.

3 Set the user's bit using the SHIFT button, "+" button and "–" button.

SHIFT button:
This is used to start the digit to be set flashing. Each time it is pressed, the flashing moves by one digit to the right.

"+" button:
This increments by 1 the numerical value of the flashing digit.

"–" button:
This decrements by 1 the numerical value of the flashing digit.

A to F in hexadecimal notation are displayed as follows:

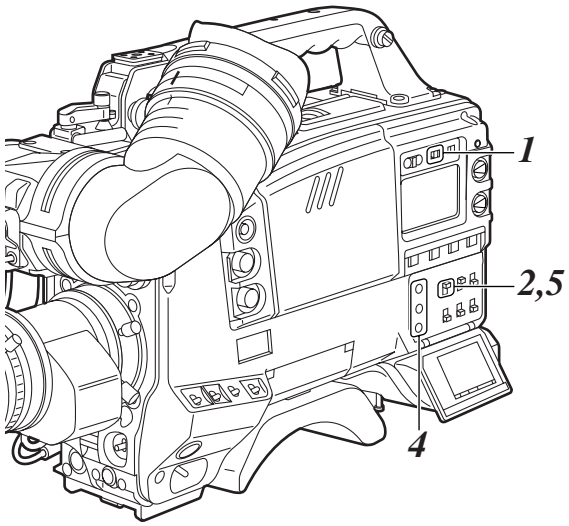
Hexadecimal notation	A	B	C	D	E	F
Display	A	b	C	d	E	F

4 Set the TCG switch to F-RUN or R-RUN.

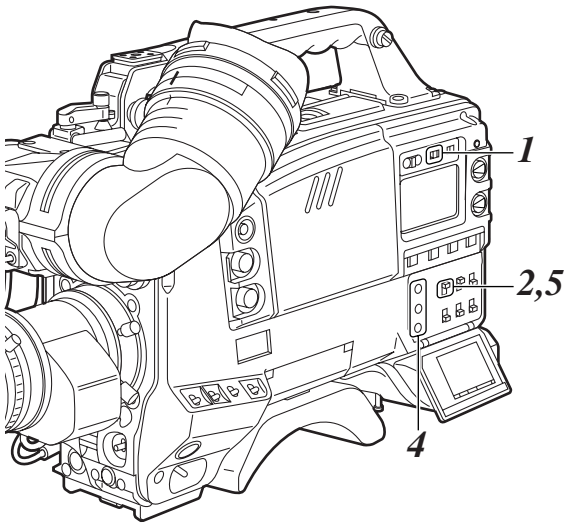
5 Select UB MODE item on the TC/UB screen of VTR MENU.

User's bit memory function
The user's bit settings (except for the actual time) are automatically saved in the memory and retained even after the power is turned off.

<Notes>
- When DATE is selected from the UB MODE items, the real time operations for year/month/day/time of the TIME/DATE screen are adhered to.
- When TIME is selected from the UB MODE items, the real time operations for hours/minutes/seconds of the TIME/DATE screen are adhered to.



Setting the time code



1 Set the DISPLAY switch to TC.

2 Set the TCG switch to SET.

3 Switch the TC MODE to DF or NDF on the TC/UB screen of VTR MENU.
Select DF to run the time code in the drop frame mode or select NDF to run the time code in the non-drop frame mode.

4 Set the time code using the SHIFT button, "+" button and "–" button.
SHIFT button:
This is used to start the digit to be set flashing. Each time it is pressed, the flashing moves by one digit to the right.
"+" button:
This increments by 1 the numerical value of the flashing digit.
"–" button:
This decrements by 1 the numerical value of the flashing digit.

5 Select the TCG switch position.
Select F-RUN for running the time code in the free-run mode or select R-RUN for running it in the rec-run mode.

Time code when the battery is replaced
The backup function works even when the battery is replaced, and the time code generator continues to operate for a prolonged duration (approx. 1 year).

<Note>
When the POWER switch is set to ON ➧ OFF ➧ ON, the backup accuracy of the time code is approximately ±2 frames.

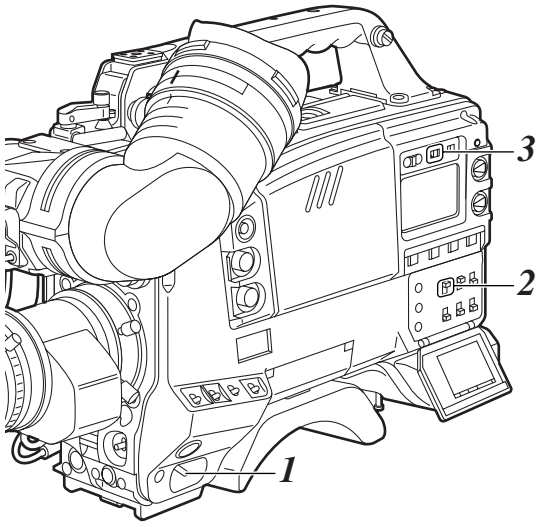
Externally locking the time code

1 Set the POWER switch to ON.

2 Set the TCG switch to F-RUN.

3 Set the DISPLAY switch to TC.

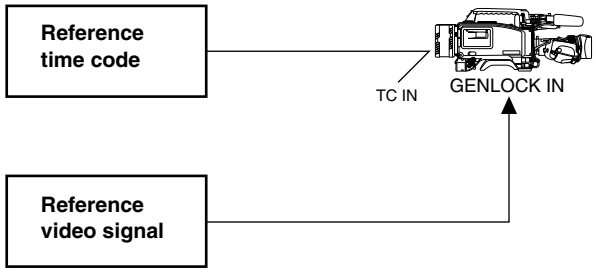
4 Supply the reference time code and reference video signal which are in a phase relationship that satisfies the time code standard to the TC IN connector and GENLOCK IN connector respectively.



Example of connections for external lock

The time code generator of the VTR unit can be locked to an external generator.

When locking to an external signal



The built-in time code generator is now locked to the reference time code.
About 10 seconds after locking, the external lock status will be retained even if the connection of the externally supplied reference time code is disconnected. However, the servo lock will be subject to disturbances if it is connected or disconnected during recording (REC).

<Note>

When the external lock operation is performed, the time code is instantly locked to the external time code, and the same value as the external code value appears on the counter display.
Do not set the unit to the recording mode during the few seconds it takes for the sync generator to stabilize.

User's bit setting when the time code is externally locked

When the time code is externally locked, only the time data is locked to the time data of the external time code.
This means that the user's bit can be set separately for each unit.
The user's bit can also be locked to the user's bit of the external time code. For details, consult your dealer.

To release the external lock

First stop supplying the external time code, and set the TCG switch to R-RUN.

When switching the power from the battery to an external power supply while the time code is externally locked

In order to ensure the continuity of the time code generator's power, connect the external power supply to the DC IN connector, and then remove the battery pack. If the battery pack is removed first, no guarantees can be made for the continuity of the external locking of the time code.

Gen-locking of the camera unit while the time code is externally locked

While the time code is externally locked, the camera unit is gen-locked by the reference video signal which is supplied to the GEN LOCK IN connector.

How to use the user data

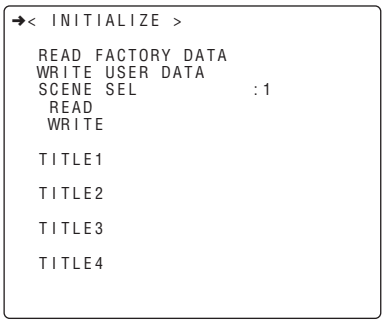
The contents of the setting menus can be saved in the user area of the camera's memory, and they can be loaded from this area. Use of this data speeds up the process of reproducing suitable setup statuses.

User data operation

Menus are used to save the setting menu contents in the user area of the camera's memory and load them from this area.

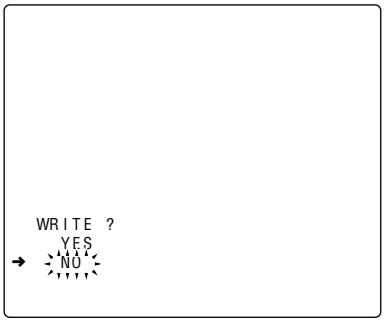
Saving the user data

1 Perform the menu operations (pages 70 to 72), and display the "INITIALIZE" screen of CAM MAIN MENU 4.



2 Turn the JOG dial button to move the arrow (cursor) to the WRITE USER DATA item.

3 When the JOG dial button is pressed, the following message appears.

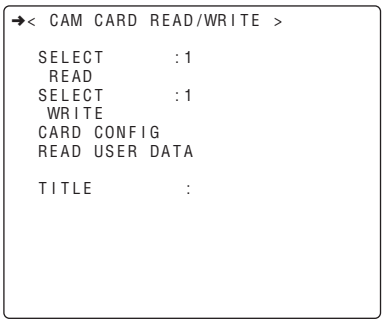


4 Turn the JOG dial button to move the arrow (cursor) to YES, and press the JOG dial button.
The data settings are saved in the user area of the camera's memory.

5 After the data has been saved, press the MENU button twice.
The setting menu is cleared, and the display showing the unit's current statuses appears at the top and bottom of the viewfinder screen.

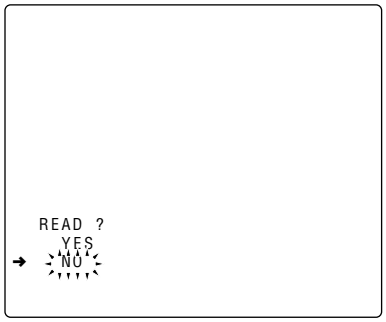
Loading the user data

1 Perform the menu operations (pages 70 to 72), and display the "CAM CARD READ/WRITE" screen of CAM MAIN MENU 3.



2 Turn the JOG dial button to move the arrow (cursor) to the READ USER DATA item.

3 When the JOG dial button is pressed, the following message appears.



4 Turn the JOG dial button to move the arrow (cursor) to YES, and press the JOG dial button.
The data settings saved in the user area of the camera's memory are loaded, and the settings are completed.

5 Press the MENU button twice.
The setting menu is cleared, and the display showing the unit's current statuses appears at the top and bottom of the viewfinder screen.

Setup card operations

Use of the setup memory card (optional accessory) enables the setting menu contents to be saved. Use of this data speeds up the process of reproducing suitable setup statuses.

- The multimedia cards can be used as the setup cards.

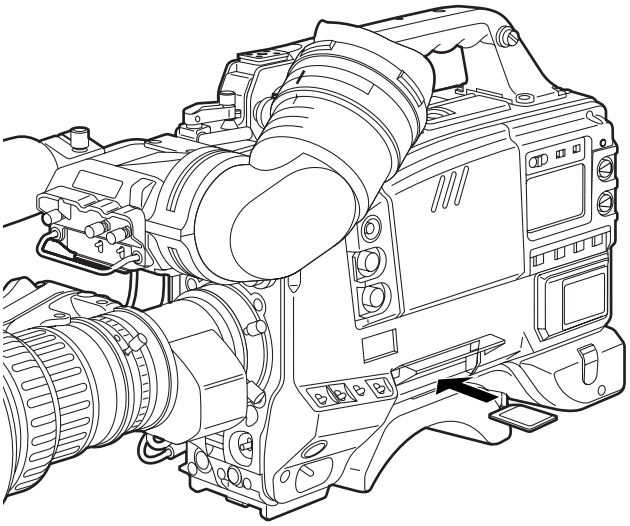
How to insert the setup card

With the surface bearing the logo facing you, insert the setup card into the setup card slot, and close the cover.

<Note>

Check that the surface bearing the logo is facing you and the lettering is not upside down before inserting the card.

When inserting the card, check the direction in which the card is pointing, and if it does not slide neatly into place, it means that the card may be pointing in the wrong direction or that it may be upside down. Do not force the card into place but check which is the front and back and which is the top and bottom, and try inserting the card again.

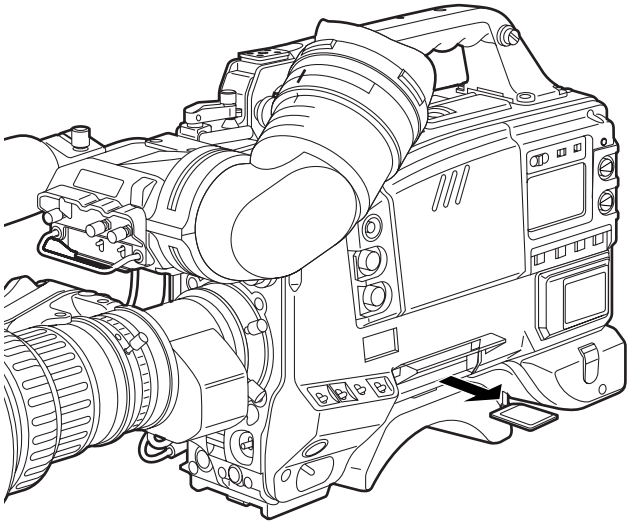


How to eject the setup card

Open the cover by raising its bottom edge, and eject the setup card.

<Note>

Take care not to touch the connector on the edge of the setup card directly.



Bear in mind the following points when using and saving the setup cards.

- Avoid high temperatures and high humidity levels.
- Keep the cards away from water.
- Avoid exposing the cards to electrical charges.

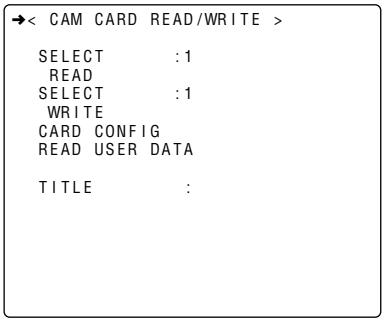
Keep the setup card inside the unit with the cover closed.

Setup card operations

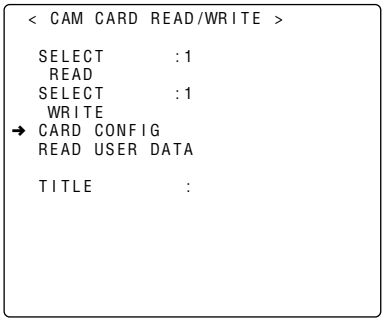
The operations for saving setting data on the setup card and loading the saved data from the card are performed on the CAM CARD READ/WRITE screen of CAM MAIN MENU 3.

Formatting the setup card

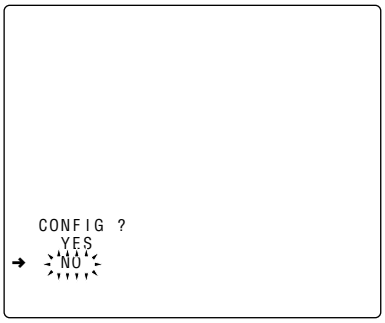
1 Perform the menu operations (pages 70 to 72), and display the “CAM CARD READ/WRITE” screen.



2 Turn the JOG dial button to move the arrow (cursor) to the CARD CONFIG item.



3 When the JOG dial button is pressed, the following message appears on the screen.



4 To proceed with the formatting of the setup card, turn the JOG dial button to move the arrow (cursor) to YES, and press the JOG dial button. When the formatting of the card is completed, the following message appears.

<Note>

When the card is formatted, the settings statuses applying at the time are also saved in the memory.



If one of the following messages appears when the JOG dial button is pressed, the card will not be formatted.

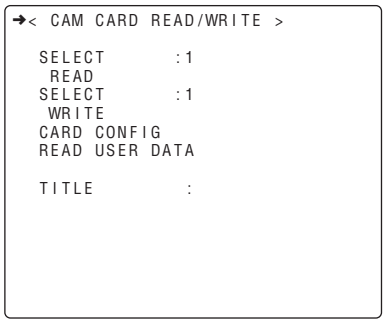
Error message	Remedial action
CONFIG NG NO CARD (setup card has not been inserted)	Insert the card.
CONFIG NG ERROR (the card cannot be formatted)	The card may be defective. Replace it.

5 Press the MENU button to exit the menu operations.

The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

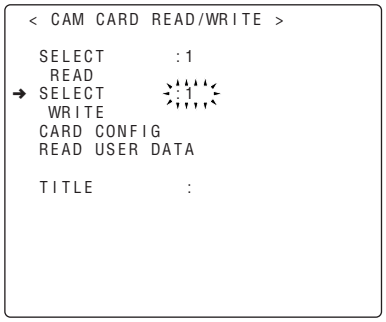
Saving the data settings on the card

1 Perform the menu operations (pages 70 to 72), and display the “CAM CARD READ/WRITE” screen.



Select the file No.

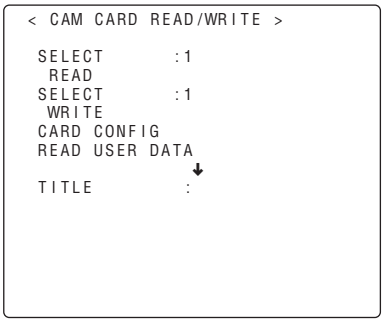
2 Turn the JOG dial button to move the arrow (cursor) to the SELECT item which comes after WRITE, and press the JOG dial button.



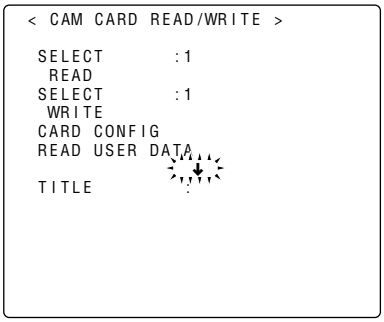
3 Turn the JOG dial button to select a number from 1 to 8, and press the JOG dial button.

Give a title to the selected file.

4 Turn the JOG dial button to move the arrow (cursor) to the TITLE item.



5 When the JOG dial button is pressed, the arrow (cursor) starts flashing, and the input mode is established.



6 Turn the JOG dial button until the character to be set appears. When the button is turned, the character displayed is switched in the following sequence:

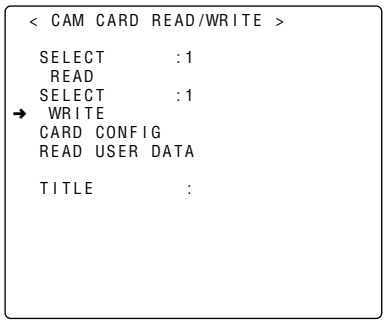
Space: □
⬇
letters: A—Z
⬇
numbers: 0—9
⬇
symbols: ’, >, <, /, –

7 Press the JOG dial button to enter the character.

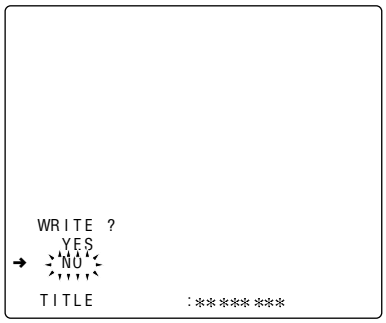
8 Turn the JOG dial button to move the arrow (cursor) to the next position (right), and repeat steps *5* to *7* to set the characters (maximum of 8).

Give a title to the selected file.

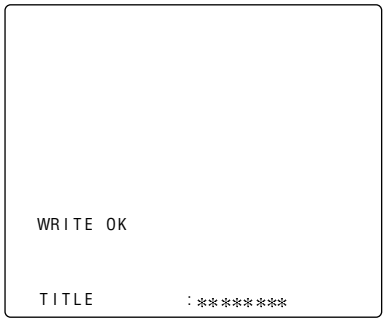
9 Turn the JOG dial button to move the arrow (cursor) to the WRITE item.



10 When the JOG dial button is pressed, the following message appears.



11 Turn the JOG dial button to move the arrow (cursor) to YES, and press the JOG dial button.
When the data saving is completed, the following message appears.



To save the VTR unit's data, open the VTR CARD READ/WRITE screen, and perform steps ***9*** to ***11***.

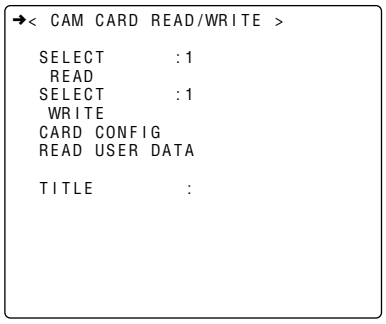
If one of the following messages appears when the JOG dial button is pressed, the data cannot be saved.

Error message	Remedial action
WRITE NG NO CARD (setup card has not been inserted)	Insert the card.
WRITE NG FORMAT ERROR (formatting error)	The card was formatted by a device other than the unit. Replace the card.
WRITE NG ERROR (the data cannot be saved)	The card may be defective. Replace it.

12 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit's current statuses appears at the top and bottom of the viewfinder screen.

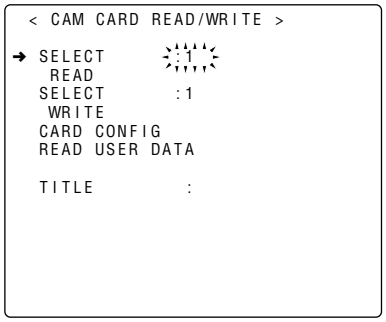
Loading the data saved on the card

1 Perform the menu operations (pages 70 to 72), and display the “CAM CARD READ/WRITE” screen.



Select the file No.

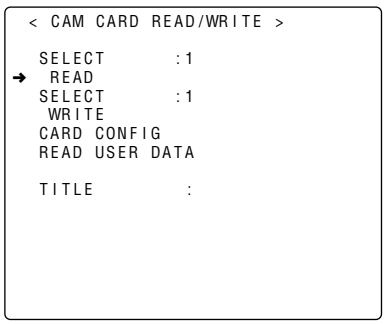
2 Turn the JOG dial button to move the arrow (cursor) to the SELECT item which comes after READ, and press the JOG dial button.



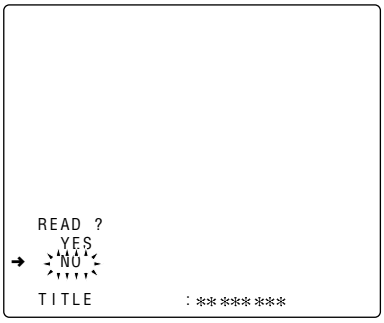
3 Turn the JOG dial button to select any number from 1 to 8, and press the JOG dial button.

Load the data of the selected file.

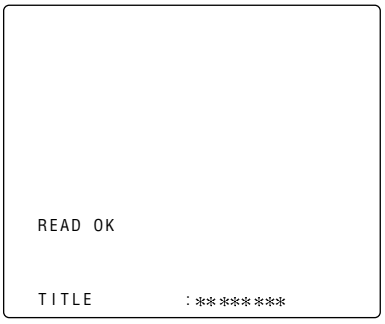
4 Turn the JOG dial button to move the arrow (cursor) to the READ item.



5 When the JOG dial button is pressed, the following message appears.



6 Turn the JOG dial button to move the arrow (cursor) to YES, and press the JOG dial button.
When the data loading is completed, the following message appears.



To load the VTR unit’s data, open the VTR CARD READ/WRITE screen, and perform steps *4* to *6*.

If one of the following messages appears when the JOG dial button is pressed, the data cannot be loaded.

Error message	Remedial action
READ NG NO CARD (setup card has not been inserted)	Insert the card.
READ NG FORMAT ERROR (formatting error)	The card was formatted by a device other than the unit. Replace the card.
READ NG NO FILE (file not found)	Save the file data.
READ NG ERROR (the data cannot be loaded)	Data saved by devices other than unit cannot be loaded.

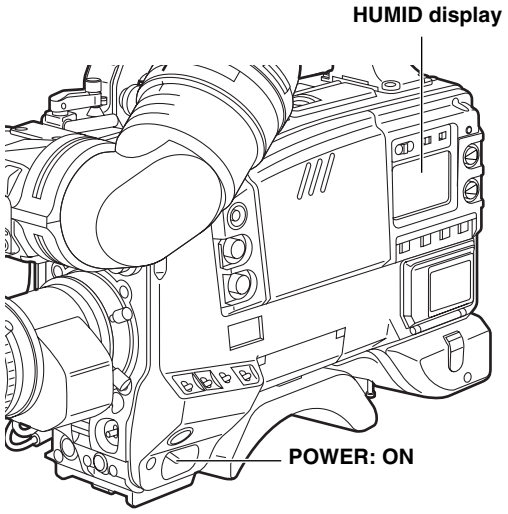
7 Press the MENU button to exit the menu operations.
The setting menu is cleared, and the display showing the unit’s current statuses appears at the top and bottom of the viewfinder screen.

Loading a cassette tape

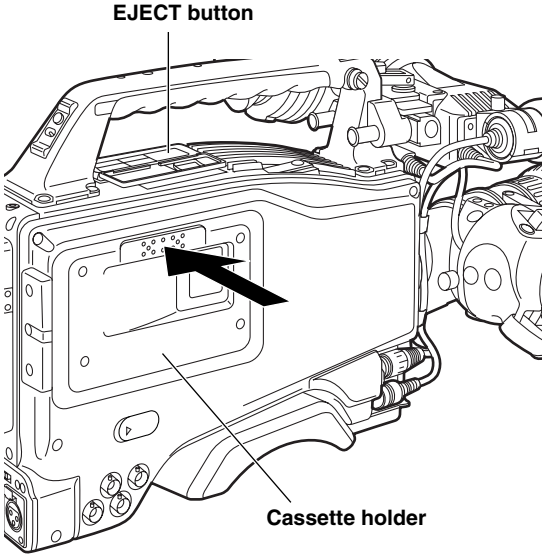
1 Check that there are no cables around the cassette holder or top panel, and set the POWER switch to ON.

<Note>

When condensation has formed inside the unit, the HUMID display lights. Wait until this display is cleared before proceeding with the intended operation.



2 Press the EJECT button.
The cassette holder opens.



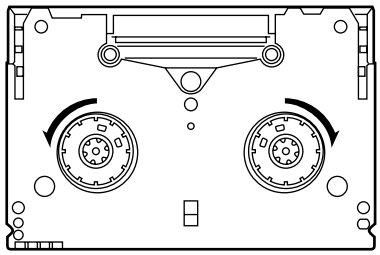
3 Insert the cassette tape and press the part marked with the arrow to close the cassette holder securely.

<Note>

Check that there is no slack in the tape of the cassette.

Checking for tape slack

Gently push in the reel using your finger and turn the reel in the direction of the arrow. If the reel fails to turn, it means there is no tape slack.



Ejecting the cassette tape

While the power is still on, press the EJECT button to open the cassette holder, and take out the cassette tape. If another cassette is not going to be loaded immediately after this tape is ejected, close the cassette holder.

Ejecting the cassette when the battery has no charge

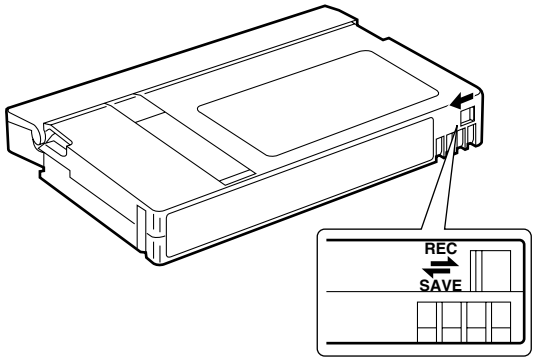
First, set the POWER switch to OFF to turn off the unit's power.

Then turn the power back on, and immediately hold down the EJECT button.

The cassette can be removed when there is still some power left in the battery. However, do not repeat this operation.

To prevent accidental erasure

Set the cassette's tab to SAVE to prevent the recordings on the tape from being erased accidentally.



This section describes the basic steps for shooting and recording.
Before actually departing to shoot scenes, carry out inspections to ensure that the system is functioning properly.

- For details on how to perform these inspections, refer to “Inspections prior to shooting” (pages 109 to 112).

From providing the power supply to loading the cassette

1 Install a fully charged battery pack.

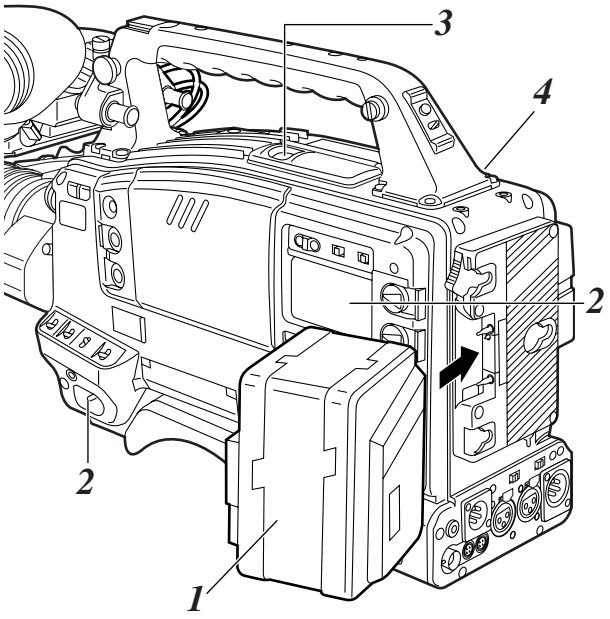
2 Set the POWER switch to ON. Now check that the HUMID display is not showing and that at least 5 segments of the remaining battery charge display are lighted.

- If the HUMID display is showing, wait until it goes off.
- If at least 5 segments of the remaining battery charge display are not lighted, replace the battery with a fully charged one.

3 Check that there are no cables around the cassette holder or top panel, and then press the EJECT button to open the cassette holder.

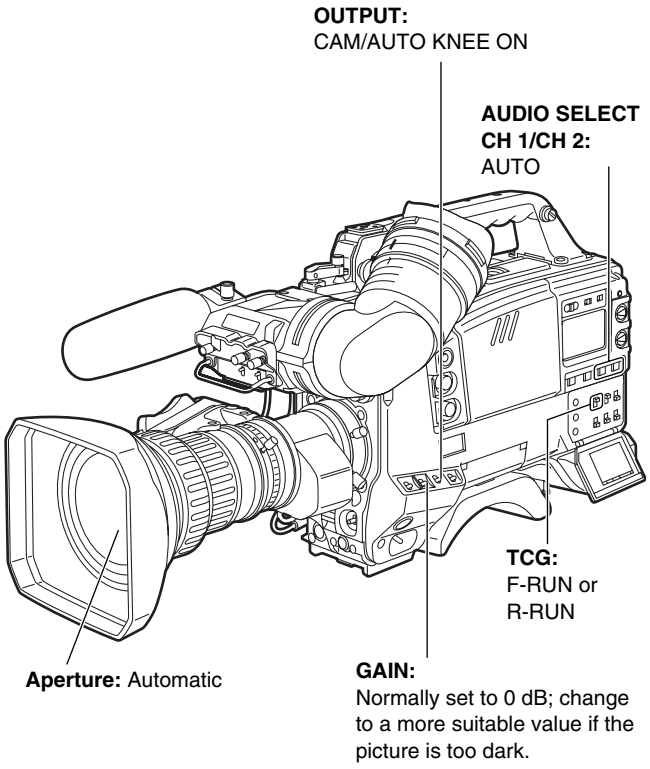
4 After checking the following, insert the cassette tape, and close the cassette holder.

- Position of the accidental erasure prevent tab
- Tape slack



From adjusting the white balance and black balance to stopping the recording

Turn on the power, and after inserting the cassette, set the switches as shown in the figure below.



Shooting

1-1 Select the filter to match the lighting conditions, and set the WHITE BAL switch to “A” or “B” if the white balance has been stored in the memory ahead of time.

If the white balance and/or black balance have not been stored in the memory and there is no time to adjust the white balance:
Set the WHITE BAL switch to PRST. The white balance for the filter is achieved in accordance with the setting position of the FILTER control (outer).

1-2 **When adjusting the white balance on the spot**
Select the filter to match the lighting conditions, set the WHITE BAL switch to “A” or “B,” and adjust the white balance as follows:
(1) Press the AUTO W/B BAL switch to the AWB position and adjust the white balance.
(2) Press the AUTO W/B BAL switch to the ABB position and adjust the black balance.
(3) Press the AUTO W/B BAL switch to the AWB position and adjust the white balance again.

For details on how to adjust the white balance, refer to “Adjusting the white balance and black balance” (pages 47 to 51).

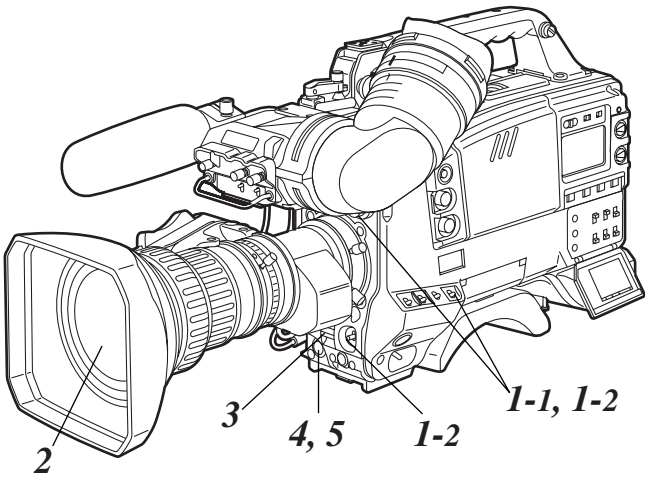
2 Point the camera at the subject, and adjust the focus and zoom.

3 When the electronic shutter is to be used, set the shutter speed and operating mode.
- For details, refer to “Setting the electronic shutter” (pages 52 and 53).

4 Press the VTR START button or lens VTR button to start recording.
During recording, the REC lamp inside the viewfinder lights.

5 To stop the recording, press the VTR START button again.
The REC lamp inside the viewfinder goes off.

Tape function buttons
During recording, the tape function buttons (EJECT, REW, FF, PLAY/PAUSE and STOP) will not work.



Scene-to-scene continuity

If the unit is in the rec-pause mode, it is possible to ensure scene-to-scene continuity with an accuracy of 0 up to 1 frame just by pressing the VTR START button or lens VTR button.
If the unit is in a mode other than rec-pause, the point at which the scene-to-scene continuity is to be maintained must be located before recording is started.

During rec-pause

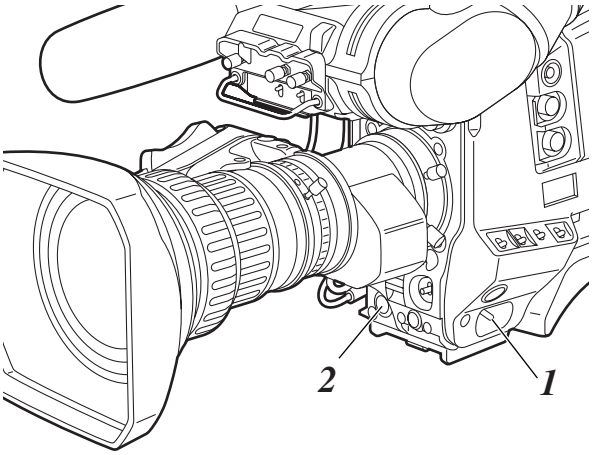
The scene-to-scene continuity timing is located automatically. However, the time taken until the start of recording differs depending on the setting of the VTR SAVE/STBY switch.

- When the VTR SAVE/STBY switch is set to SAVE, recording commences about two seconds after the VTR START button is pressed.
- When the VTR SAVE/STBY switch is set to STBY, recording commences as soon as the VTR START button is pressed.

Ensuring scene-to-scene continuity after the power was turned off while the unit was in the rec-pause mode

1 Switch the power back on.

2 Press the VTR START button or lens VTR button to start the recording.



Ensuring scene-to-scene continuity at other times

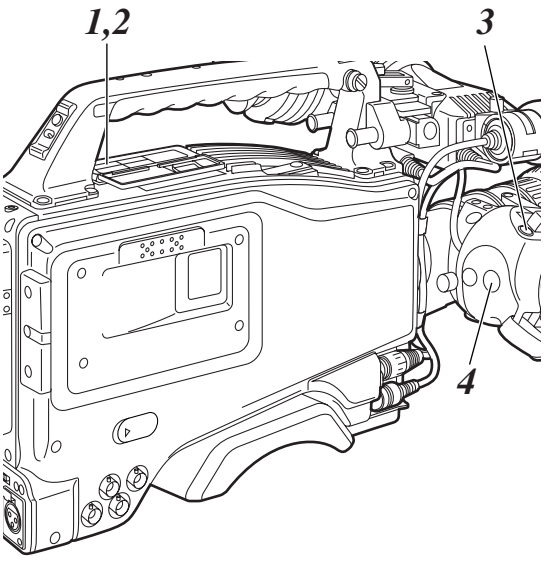
Proceed as follows either after the tape has been allowed to run or after the cassette has been ejected or when ensuring continuity on a tape which has been recorded only in part.

1 While monitoring the viewfinder screen, press the PLAY/PAUSE button to play back the tape.

2 At the place on the tape where continuity is to be maintained, press the PLAY/PAUSE (or STOP) button again to stop the tape.

3 Press the lens RET button. It takes about two seconds to complete the preparations for the scene-to-scene continuity.

4 Press the VTR START button or lens VTR button to start the recording.



Playback (checking what has been recorded)

When the PLAY/PAUSE button is pressed, the playback pictures can be monitored in black and white on the viewfinder screen.
These playback pictures can be monitored in two other ways.

Rec review

When recording is temporarily stopped and the lens RET button is pressed, the last two seconds of the tape are automatically rewound, and the playback pictures on this part of the tape appear on the viewfinder screen. This makes it possible to check whether recording was performed properly.
After the two seconds of the tape have been played back, the unit is again set to the recording start standby mode.
If the RET button is held down, a maximum of 10 seconds of the tape is rewound and played back.
<Note>
The rec review function cannot be used unless recording lasts for one or more seconds.

Color playback

When an HD color monitor is connected to the unit's HD SDI OUT connector, color playback pictures can be monitored.
The playback signals will be output to the viewfinder even during rewinding (REW) or fast forwarding (FF).
Selecting the audio output of the playback signal and adjusting the volume are accomplished using the MONITOR switch control (page 11).

Lens RET button functions

Depending on the internal VTR status, the RET button functions which appear on the viewfinder screen change as follows.

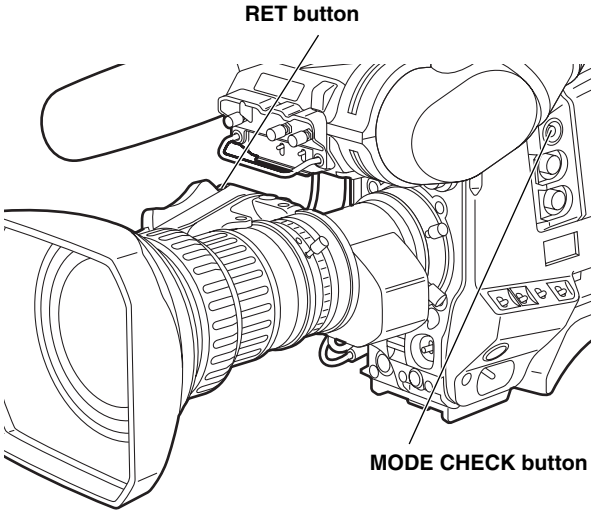
Internal VTR status	What appears on the viewfinder screen
During recording	Pictures which are shot by the camera (RET button does not work)
During rec-pause	What has just been recorded (rec review of 2 seconds of the tape recording) can be checked.
During playback	Playback pictures of internal VTR (RET button does not work)
During play-pause	Pictures accompanying operation to locate the scene-to-scene continuity point

NEWS REC function

The NEWS REC function is set using NEWS REC MODE on the VTR MENU “FUNCTION” screen.
By controlling the VTR START button acknowledgment time during recording (by up to 2 seconds), the time taken for the unit to transfer from the recording mode to the rec-pause mode can be delayed.
In other words, by controlling the VTR start button operation acknowledgment time, the unit can continuously record without the user having to interrupt the recording: this safeguards against the failure to record those precious moments—a failure that occurs when recording is resumed immediately after it was shut down temporarily.

RETAKE function

The RETAKE function is activated by selecting ON for RETAKE MODE on the VTR MENU “FUNCTION” screen.
If the lens RET button is pressed while holding down the MODE CHECK button when the unit is in the rec-pause mode upon completion of a recording or subsequently in the STOP mode, the tape will be rewound to a point near the start point (a position about 10 frames ahead of the recording start point) of the final picture which was last recorded, and the unit will be set to the rec-pause mode.
If there is enough leeway in the shooting time and a particular cut is clearly judged to be no good, recording can be started from that point so that the no-good cut will be deleted.
By cutting down on the time taken for copying onto the work tape, for instance, this function is very effective in achieving economical operation.

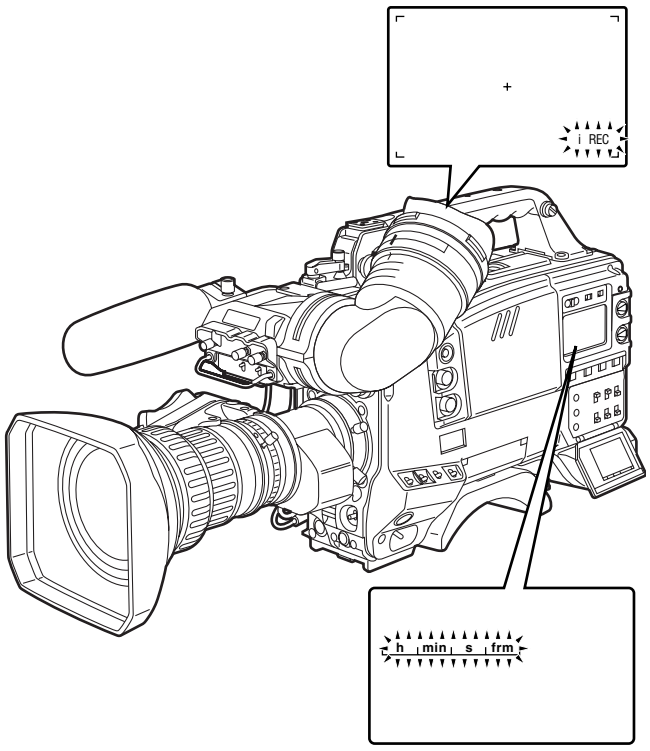


INTERVAL REC (intermittent recording) function

This function makes simple interval shooting (intermittent recording) possible. It proves to be particularly effective when shooting programs with a nature theme or art programs.
The INTERVAL REC function is set on the VTR MENU “FUNCTION” screen.

- INTERVAL REC MODE
  This sets the INTERVAL REC function to ON or OFF.
- INTERVAL REC TIME
  This sets the recording time (1 cut) for interval shooting.
- INTERVAL PAUSE TIME
  This sets the rec-pause time for interval shooting.

Once the above items are set, the unit is set to the INTERVAL REC mode, and “i” starts to flash inside the viewfinder.
When the VTR START button is now pressed, interval shooting is started, and “iREC” lights in place of “i.”
Also, the time unit (h/min/s/frm) display on the counter display area starts to flash.
When the unit is set to rec-pause mode upon completion of the first interval shooting, “iREC” goes from lighted to flashing inside the viewfinder.
The time unit display on the counter display area remains flashing.



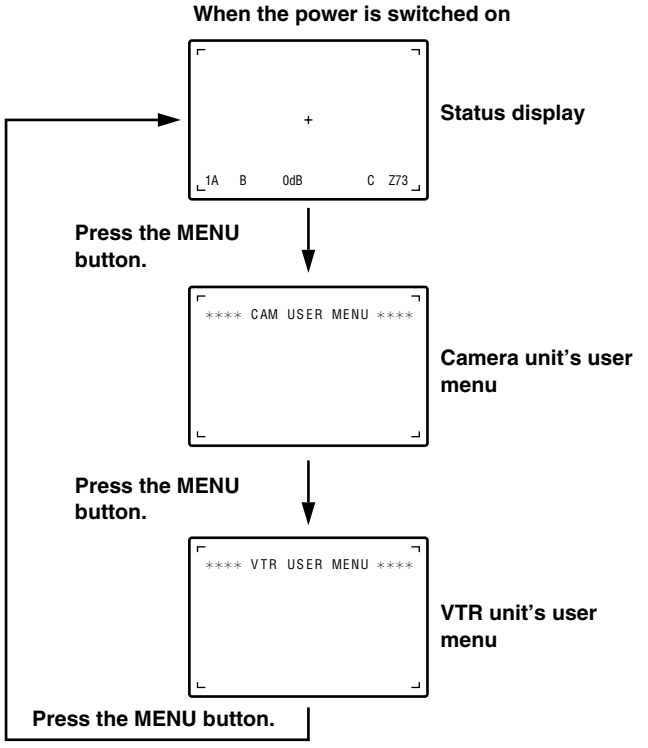
The setting menu operations are performed using the MENU button and JOG dial button. The menu configuration is divided into the camera unit's setting menus and VTR unit's setting menus.
It is possible to select the engineer menu which enables all the setting menu items to be set or, alternatively, the user menu which consists of individually tailored menus so that only those menus which will be used most frequently can be set.

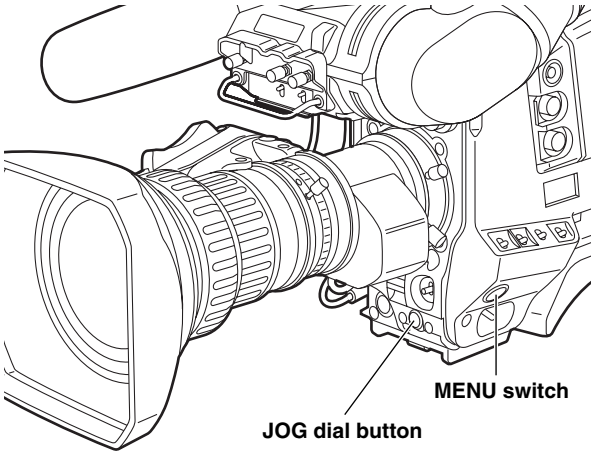
User menu

The user menu was set when the unit was shipped. However, the user can change the configuration of the menus by selecting only those menus which will be used most frequently so that they will be tailored to the user's individual needs.
Set the user menu on the USER MENU SELECT screen of the engineer menu. The data settings are saved in the non-volatile memory for long-term storage.

Display method

- When the MENU button is pressed, the camera unit's USER menu screen which was set at the time of shipment is displayed.
- When the MENU button is pressed again, the VTR unit's USER menu screen is displayed.
- When the MENU button is pressed once more, the menu screen display is cleared.





Engineer menu

All the setting menu items can be set on this menu.
The data settings are saved in the non-volatile memory for long-term storage.

Display method

- Hold down the MENU button for at least 3 seconds.
- When the MENU button is pressed again, the VTR unit's MAIN MENU screen is displayed.
- When the MENU button is pressed once more, the menu screen display is cleared.

<Note>

The engineer menu is displayed at all times when the AJ-EC3 extension control unit (optional accessory) is connected to the unit for operating the unit by remote control.

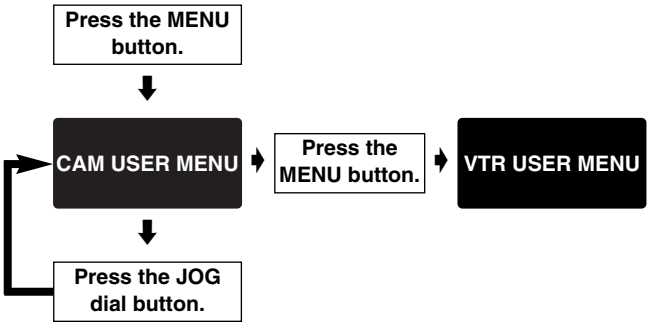
Basic setting menu operations

Displaying menus

User menu:

1 Press the MENU button.
The camera unit's USER menu screen is displayed.

2 When the MENU button is pressed again, the VTR unit's USER menu screen is displayed.

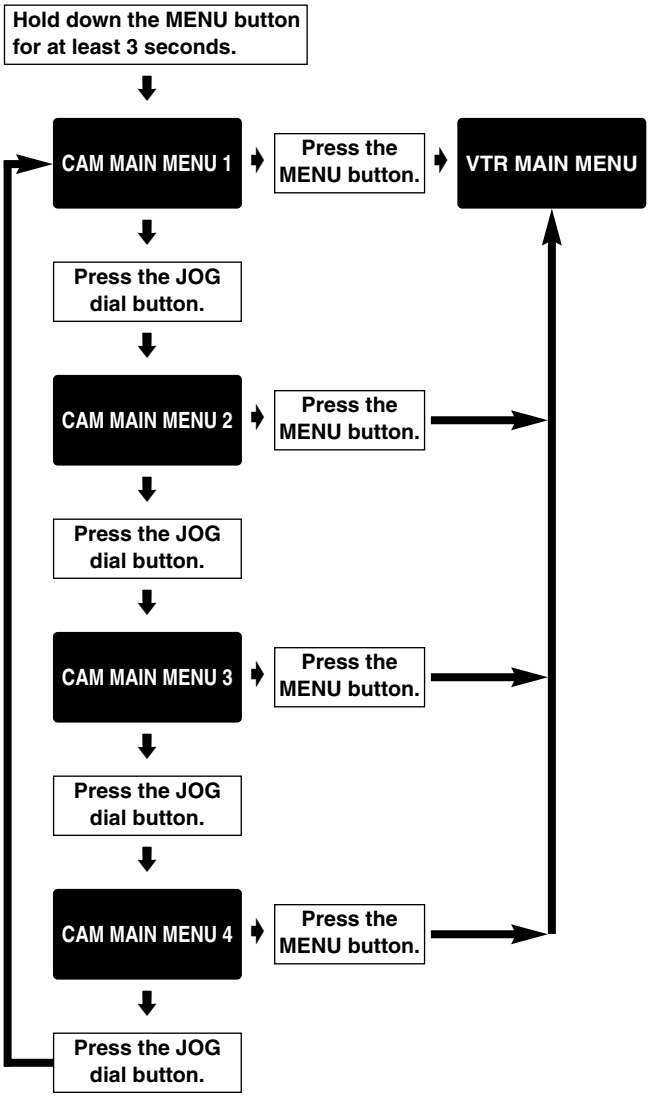


Engineer menu

1 Hold down the MENU button for at least 3 seconds.

2 When the JOG dial button is pressed, the next MAIN menu screen (of the camera unit) is displayed.

3 When the MENU button is pressed, the VTR unit's MAIN MENU screen is displayed.



Displaying sub-menus and deciding on settings

Operations common to the user menu and engineer menu

1 Turn the JOG dial button while the USER menu screen or MAIN menu screen is displayed.
The cursor (➔) moves to the SUB menu item.

Example:

Turn the JOG dial button. ➧

```
➔**** CAM MAIN MENU1 ****

  ROP
  MATRIX
  COLOR CORRECTION1
  COLOR CORRECTION2
  LOW SETTING
  MID SETTING
  HIGH SETTING
  ADITIONAL DTL1
  ADITIONAL DTL2
  SKIN TONE DTL
  KNEE/LEVEL
  GAMMA
  CAMERA SETTING
```

2 Move the cursor (➔) to the desired SUB menu item, and press the JOG dial button.
The SUB menu is now displayed.
(The cursor appears in the title part of the SUB menu.)

Example:

Press the JOG dial button. ➧

```
 **** CAM MAIN MENU1 ****

➔ ROP
  MATRIX
  COLOR CORRECTION1
  COLOR CORRECTION2
  LOW SETTING
  MID SETTING
  HIGH SETTING
  ADITIONAL DTL1
  ADITIONAL DTL2
  SKIN TONE DTL
  KNEE/LEVEL
  GAMMA
  CAMERA SETTING
```

```
➔< ROP >
  MASTER PED       : +008
  MASTER DTL       : +00
  MASTER GAMMA     : 0.45
  R GAIN           : +000
  G GAIN           : +000
  B GAIN           : +000
  R PEDESTAL       : +000
  G PEDESTAL       : +000
  B PEDESTAL       : +000
```

3 Turn the JOG dial button to move the cursor to the desired item to be set, and press the JOG dial button.
The digit whose value is to be set now flashes.

Example:

Press the JOG dial button. ➧

```
 < ROP >
➔ MASTER PED       : +008
  MASTER DTL       : +00
  MASTER GAMMA     : 0.45
  R GAIN           : +000
  G GAIN           : +000
  B GAIN           : +000
  R PEDESTAL       : +000
  G PEDESTAL       : +000
  B PEDESTAL       : +000
```

4 Turn the JOG dial button to change the setting.

5 When the desired setting is reached, press the JOG dial button.
The setting is now entered.

6 When other items are to be set, turn the JOG dial button to move the cursor, and change and enter the settings by repeating steps *3* to *5*.

7 To move to another SUB menu, turn the JOG dial button to move the cursor to the title part of the SUB menu, and press the JOG dial button.
The USER menu screen or MAIN menu screen is now displayed so proceed with operation by following the same steps.

Example:

Press the JOG dial button. ➧

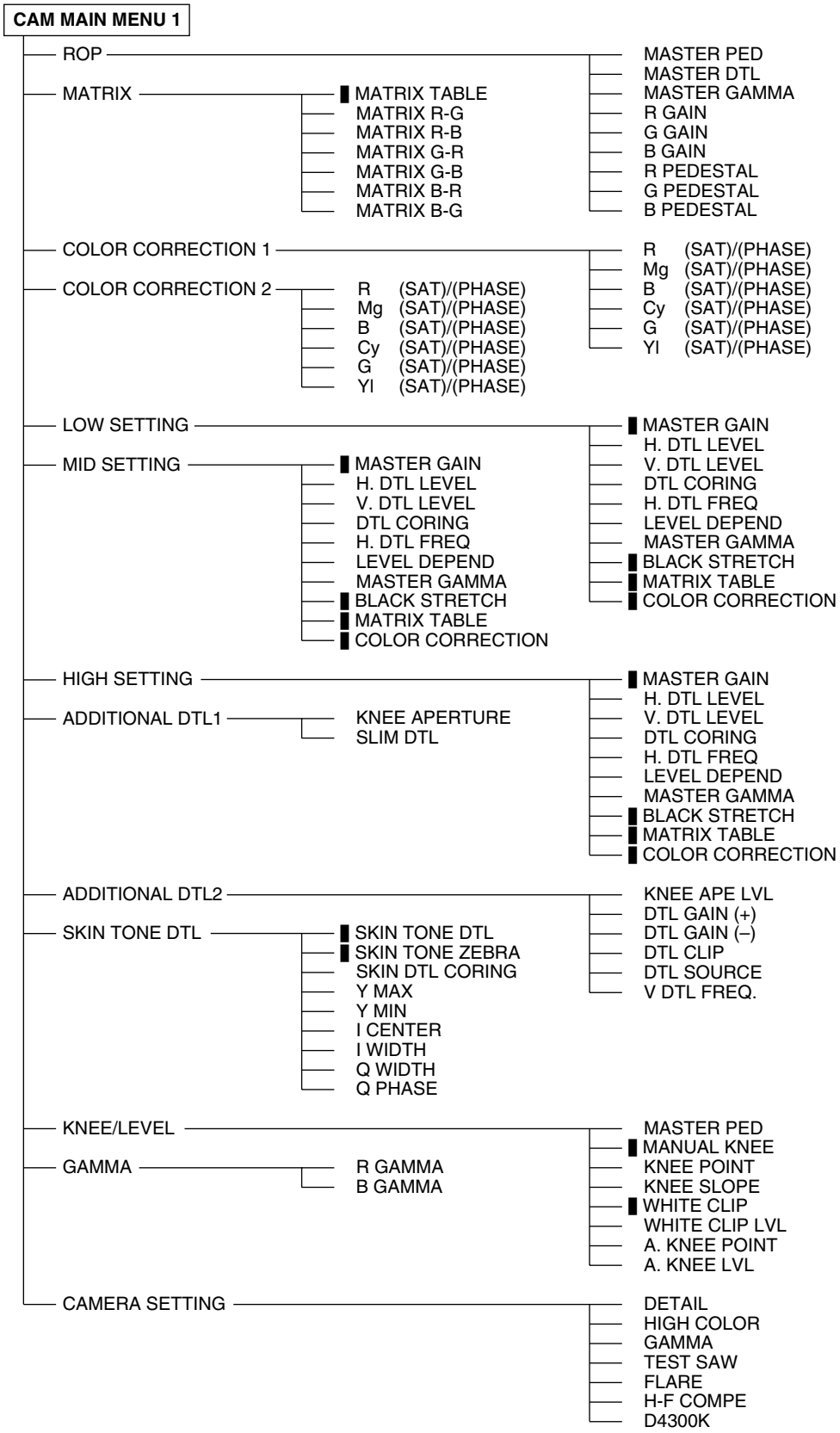
```
➔< ROP >
  MASTER PED       : +008
  MASTER DTL       : +00
  MASTER GAMMA     : 0.45
  R GAIN           : +000
  G GAIN           : +000
  B GAIN           : +000
  R PEDESTAL       : +000
  G PEDESTAL       : +000
  B PEDESTAL       : +000
```

8 Upon completion of the settings, press the MENU button. The settings are now recorded, the setting menu mode is exited, and the normal operation mode is restored.

<Note>

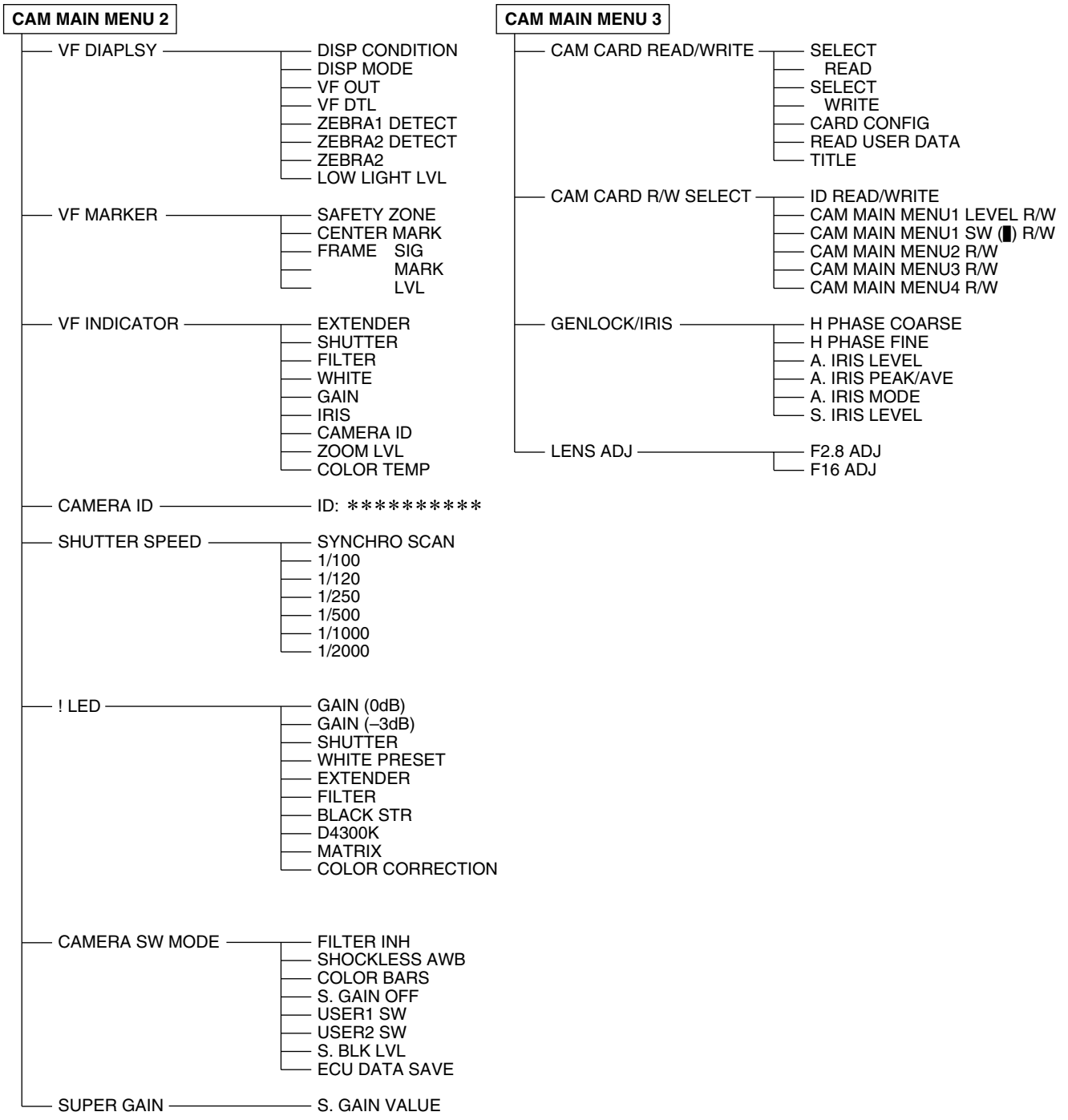
To exit the camera unit's menu, press the MENU button twice. When the MENU button is pressed once, operation is transferred to the VTR unit's menu.

Setting menu configuration

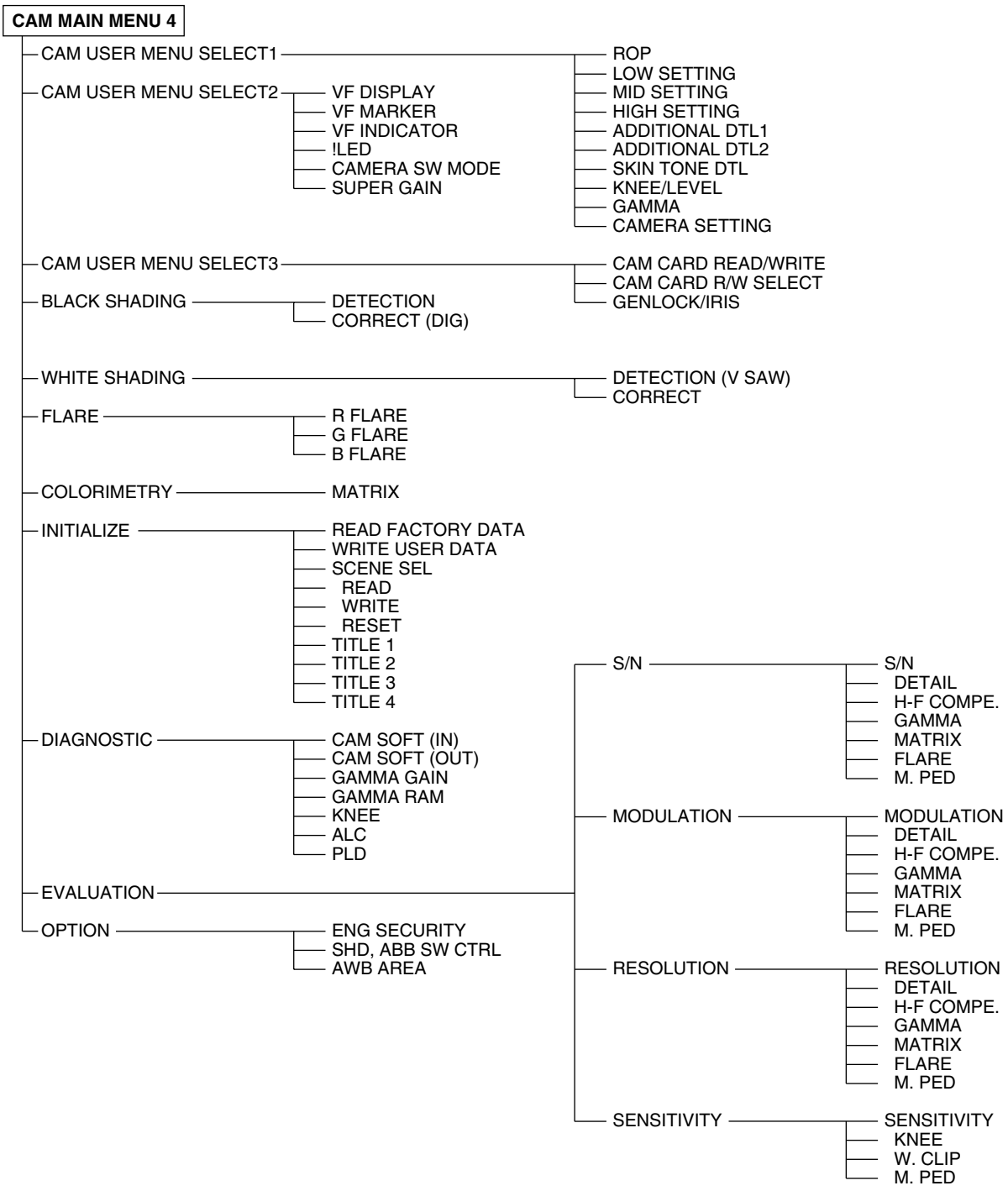


<Note>
Items indicated with ▌ are items whose settings can only be switched ON and OFF.

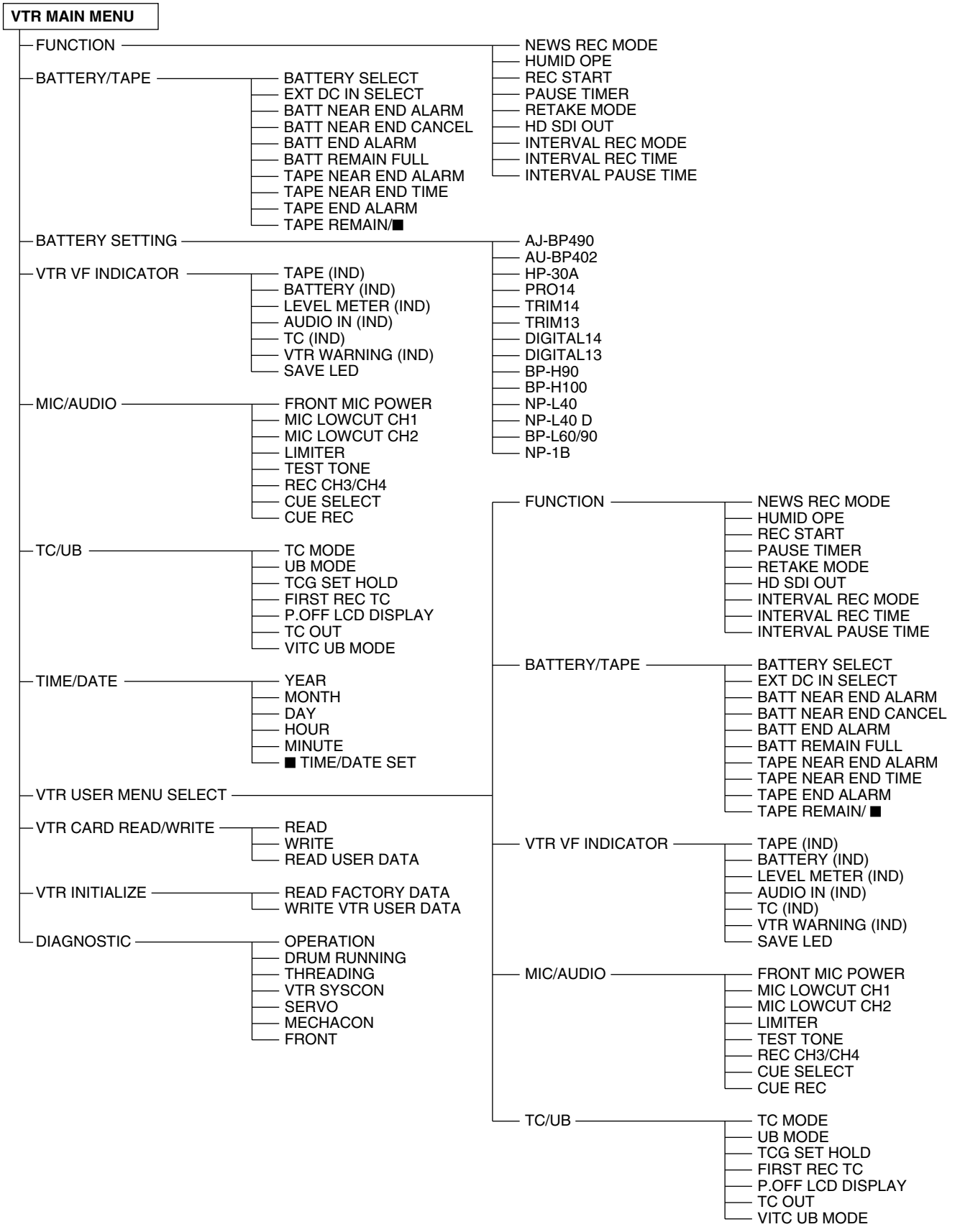
Setting menu configuration



Setting menu configuration



Setting menu configuration



Setting menu screens (CAM MENU)

The main menu consists of CAM MAIN MENU (1 to 4) of the camera and the VTR MAIN MENU of the VTR.
These screens are index screens which are used to open the sub-menus.
The setting menu is operated with the MENU button and JOG dial button.
(Refer to pages 70 to 72 for the menu operations.)

CAM MAIN MENU 1 screen

SUB menu	VF display	Remarks
ROP	USER ENG	Index for opening the ROP screen.
MATRIX	USER ENG	Index for opening the MATRIX screen.
COLOR CORRECTION1	USER ENG	Index for opening the COLOR CORRECTION 1 screen.
COLOR CORRECTION2	USER ENG	Index for opening the COLOR CORRECTION 2 screen.
LOW SETTING	USER ENG	Index for opening the LOW SETTING screen.
MID SETTING	USER ENG	Index for opening the MID SETTING screen.
HIGH SETTING	USER ENG	Index for opening the HIGH SETTING screen.
ADDITIONAL DTL1	USER ENG	Index for opening the ADDITIONAL DTL 1 screen.
ADDITIONAL DTL2	USER ENG	Index for opening the ADDITIONAL DTL 2 screen.
SKIN TONE DTL	USER ENG	Index for opening the SKIN TONE DTL screen.
KNEE/LEVEL	USER ENG	Index for opening the KNEE/LEVEL screen.
GAMMA	USER ENG	Index for opening the GAMMA screen.
CAMERA SETTING	USER ENG	Index for opening the CAMERA SETTING screen.

CAM MAIN MENU 2 screen

SUB menu	VF display	Remarks
VF DISPLAY	USER ENG	Index for opening the VF DISPLAY screen.
VF MARKER	USER ENG	Index for opening the VF MARKER screen.
VF INDICATOR	USER ENG	Index for opening the VF INDICATOR screen.
CAMERA ID	ENG	Index for opening the CAMERA ID screen.
SHUTTER SPEED	ENG	Index for opening the SHUTTER SPEED screen.
!LED	USER ENG	Index for opening the !LED screen.
CAMERA SW MODE	USER ENG	Index for opening the CAMERA SW MODE screen.
SUPER GAIN	USER ENG	Index for opening the SUPER GAIN screen.

CAM MAIN MENU 3 screen

SUB menu	VF display	Remarks
CAM CARD READ/WRITE	USER ENG	Index for opening the CAM CARD READ/WRITE screen.
CAM CARD R/W SELECT	USER ENG	Index for opening the CARD R/W SELECT screen.
GENLOCK/IRIS	USER ENG	Index for opening the GENLOCK/IRIS screen.
LENS ADJ	USER ENG	Index for opening the LENS ADJ screen.

CAM MAIN MENU 4 screen

SUB menu	VF display	Remarks
CAM USER MENU SELECT1	USER ENG	Index for opening the CAM USER MENU SELECT 1 screen.
CAM USER MENU SELECT2	USER ENG	Index for opening the CAM USER MENU SELECT 2 screen.
CAM USER MENU SELECT3	USER ENG	Index for opening the CAM USER MENU SELECT 3 screen.
BLACK SHADING	USER ENG	Index for opening the BLACK SHADING screen.
WHITE SHADING	USER ENG	Index for opening the WHITE SHADING screen.
FLARE	USER ENG	Index for opening the FLARE screen.
COLORIMETRY	USER ENG	Index for opening the COLORIMETRY screen.
INITIALIZE	USER ENG	Index for opening the INITIALIZE screen.
DIAGNOSTIC	USER ENG	Index for opening the DIAGNOSTIC screen.
EVALUATION	USER ENG	Index for opening the EVALUATION screen.
OPTION	USER ENG	Index for opening the OPTION screen.

ROP screen

The ROP (Remote Operation Panel) is set on this screen.

Item	Variable range	VF display	Remarks
MASTER PED	–200 : +18 : +200 (Max.)	USER ENG	MASTER PEDESTAL level setting.
MASTER DTL	–31 : +00 : +31	USER ENG	H. DTL/V. DTL level setting.
MASTER GAMMA	0.35 : 0.45 : 0.75	USER ENG	MASTER GAMMA setting. (0.01 step) Three different values can be stored for LOW, MID and HIGH in the memory.
R GAIN	–200 : +000 : +200 (Max.)	USER ENG	For setting R channel gain.
G GAIN	–200 : +000 : +200 (Max.)	USER ENG	For setting G channel gain.
B GAIN	–200 : +000 : +200 (Max.)	USER ENG	For setting B channel gain.
R PEDESTAL	–100 : +000 : +100 (Max.)	USER ENG	For setting R channel PEDESTAL level.
G PEDESTAL	–100 : +000 : +100 (Max.)	USER ENG	For setting G channel PEDESTAL level.
B PEDESTAL	–100 : +000 : +100 (Max.)	USER ENG	For setting B channel PEDESTAL level.

MATRIX screen

The camera matrix is set on this screen.

Item	Variable range	VF display	Remarks
MATRIX TABLE	A B	USER ENG	For selecting the color adjustment display.
MATRIX R-G	–31 : +00 : +31	USER ENG	Color adjustment
MATRIX R-B	–31 : +00 : +31	USER ENG	Color adjustment
MATRIX G-R	–31 : +00 : +31	USER ENG	Color adjustment
MATRIX G-B	–31 : +00 : +31	USER ENG	Color adjustment
MATRIX B-R	–31 : +00 : +31	USER ENG	Color adjustment
MATRIX B-G	–31 : +00 : +31	USER ENG	Color adjustment

<Notes>

- The white balance and black balance will not change even if the MATRIX is changed.
- Two tables, A and B, can be stored in the memory for the MATRIX TABLE item.
- “00” applies for all the preset modes in MATRIX TABLE B.

The underlining in the variable range column indicates the setting in the preset mode.

COLOR CORRECTION 1 screen

The camera color saturation adjustments and hue adjustments are set on this screen.

Item	Variable range	VF display	Remarks
R (SAT) R (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: red
Mg (SAT) Mg (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: magenta
B (SAT) B (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: blue
Cy (SAT) Cy (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: cyan
G (SAT) G (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: green
Yl (SAT) Yl (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: yellow

COLOR CORRECTION 2 screen

The camera color saturation adjustments and hue adjustments are set on this screen.

Item	Variable range	VF display	Remarks
R-Mg (SAT) R-Mg (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between red and magenta
Mg-B (SAT) Mg-B (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between magenta and blue
B-Cy (SAT) B-Cy (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between blue and cyan
Cy-G (SAT) Cy-G (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between cyan and green
G-Yl (SAT) G-Yl (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between green and yellow
Yl-R (SAT) Yl-R (PHASE)	–63 : +00 : +63	USER ENG	Color saturation adjustment and hue adjustment: between yellow and red

The underlining in the variable range column indicates the setting in the preset mode.

LOW SETTING screen

The low level gain is set on this screen.

Item	Variable range	VF display	Remarks
MASTER GAIN	–3dB : 0dB : 30dB	USER ENG	–6dB, –3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB or 30 dB can be set.
H. DTL LEVEL	0 : 12 : 63	USER ENG	For setting H.DTL (detail) level.
V. DTL LEVEL	0 : 16 : 63	USER ENG	For setting V.DTL (detail) level.
DTL CORING	0 : 2 : 15	USER ENG	For setting DTL coring.
H. DTL FREQ	0 : 22 : 29	USER ENG	For selecting H.DTL FREQUENCY.
LEVEL DEPEND	0 : 2 : 5	USER ENG	For setting LEVEL DEPEND. The detail of only the dark areas is removed when the Y detail is boosted. The higher the figure set for this item, the broader the range of the detail which is removed.
MASTER GAMMA	0.35 : 0.45 : 0.75	USER ENG	Master gamma setting. (0.01 step)
BLACK STRETCH	ON OFF	USER ENG	For setting the mode to compensate for low-brightness black stretch to ON or OFF.
MATRIX TABLE	A B OFF	USER ENG	For selecting the color correction matrix table.
COLOR CORRECTION	ON OFF	USER ENG	For setting the 12-axis independent color correction to ON or OFF.

MID SETTING screen

The middle level gain is set on this screen.

Item	Variable range	VF display	Remarks
MASTER GAIN	–3dB : 6dB : 30dB	USER ENG	–6dB, –3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB or 30 dB can be set.
H. DTL LEVEL	0 : 12 : 63	USER ENG	For setting H.DTL (detail) level.
V. DTL LEVEL	0 : 16 : 63	USER ENG	For setting V.DTL (detail) level.
DTL CORING	0 : 2 : 15	USER ENG	For setting DTL coring.
H. DTL FREQ	0 : 22 : 29	USER ENG	For selecting H.DTL FREQUENCY.
LEVEL DEPEND	0 : 2 : 5	USER ENG	For setting LEVEL DEPEND. The detail of only the dark areas is removed when the Y detail is boosted. The higher the figure set for this item, the broader the range of the detail which is removed.
MASTER GAMMA	0.35 : 0.45 : 0.75	USER ENG	Master gamma setting. (0.01 step)
BLACK STRETCH	ON OFF	USER ENG	For setting the mode to compensate for low-brightness black stretch to ON or OFF.
MATRIX TABLE	A B OFF	USER ENG	For selecting the color correction matrix table.
COLOR CORRECTION	ON OFF	USER ENG	For setting the 12-axis independent color correction to ON or OFF.

The underlining in the variable range column indicates the setting in the preset mode.

HIGH SETTING screen

The high level gain is set on this screen.

Item	Variable range	VF display	Remarks
MASTER GAIN	–3dB : 12dB : 30dB	USER ENG	–6dB, –3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 24 dB or 30 dB can be set.
H. DTL LEVEL	0 : 12 : 63	USER ENG	For setting H.DTL (detail) level.
V. DTL LEVEL	0 : 16 : 63	USER ENG	For setting V.DTL (detail) level.
DTL CORING	0 : 5 : 15	USER ENG	For setting DTL coring.
H. DTL FREQ	0 : 22 : 29	USER ENG	For selecting H.DTL FREQUENCY.
LEVEL DEPEND	0 : 5	USER ENG	For setting LEVEL DEPEND. The detail of only the dark areas is removed when the Y detail is boosted. The higher the figure set for this item, the broader the range of the detail which is removed.
MASTER GAMMA	0.35 : 0.45 : 0.75	USER ENG	Master gamma setting. (0.01 step)
BLACK STRETCH	ON OFF	USER ENG	For setting the mode to compensate for low-brightness black stretch to ON or OFF.
MATRIX TABLE	A B OFF	USER ENG	For selecting the color correction matrix table.
COLOR CORRECTION	ON OFF	USER ENG	For setting the 12-axis independent color correction to ON or OFF.

ADDITIONAL DTL 1 screen

The special detail features of the camera are set on this screen.

Item	Variable range	VF display	Remarks
KNEE APERTURE	ON OFF	USER ENG	For setting the knee aperture to ON or OFF. At the “ON” setting, the detail above the knee point is boosted.
SLIM DTL	ON OFF	USER ENG	For setting the mode to make the detail finer to ON or OFF.

ADDITIONAL DTL2 screen

The special detail features of the camera are set on this screen.

Item	Variable range	VF display	Remarks
KNEE APA LVL	0 5	USER ENG	For changing the detail level in the high-brightness areas.
DTL GAIN (+)	–31 : +00 : +31	USER ENG	For changing the H detail level in the “+” direction.
DTL GAIN (–)	–31 : +00 : +31	USER ENG	For changing the H detail level in the “–” (bottom) direction.
DTL CLIP	00 : 47 : 63	USER ENG	For changing the clipping level of the detail signal.
DTL SOURCE	(G+B)/2 (R+G)/2 (2G+R+B)/4 (3G+R)/4 R G	USER ENG	For setting the ratio between the RGB signal components which generate the detail signal.
V DTL FREQ.	360TV 450TV 540TV 630TV 720TV	USER ENG	For setting the V. DTL FREQUENCY.

The underlining in the variable range column indicates the setting in the preset mode.

SKIN TONE DTL screen

The skin tone detail of the camera is set on this screen.

Item	Variable range	VF display	Remarks
SKIN TONE DTL	ON OFF	USER ENG	For setting the skin tone detail to ON or OFF.
SKIN TONE ZEBRA	ON OFF	USER ENG	For setting zebra in the skin tone range to ON or OFF. At the “ON” setting, the amount of detail in the zebra viewing range is varied.
SKIN DTL CORING	0 : 5 : 7	USER ENG	For setting the detail coring.
Y MAX	0 : 190 : 255	USER ENG	For setting the maximum luminance level at which the detail is boosted.
Y MIN	0 : 10 : 255	USER ENG	For setting the minimum luminance level at which the detail is boosted.
I CENTER	0 : 55 : 255	USER ENG	For setting the medium I-axis level at which the detail is boosted.
I WIDTH	0 : 90 : 255	USER ENG	For setting the minimum I-axis level at which the detail is boosted.
Q WIDTH	0 : 10 : 255	USER ENG	For setting the maximum Q-axis level at which the detail is boosted.
Q PHASE	0 : 255	USER ENG	For setting the minimum Q-axis level at which the detail is boosted.

KNEE/LEVEL screen

The knee settings of the camera are performed on this screen.

Item	Variable range	VF display	Remarks
MASTER PED	–200 : +018 : +200	USER ENG	For setting the master pedestal level (MASTER PED).
MANUAL KNEE	ON OFF	USER ENG	For setting the mode when the AUTO KNEE switch is at OFF.
KNEE POINT	80% : 95% : 107%	USER ENG	For setting the manual knee point position.
KNEE SLOPE	0 : 50 : 99	USER ENG	For setting the manual knee slope.
WHITE CLIP	ON OFF	USER ENG	For setting white clipping to ON or OFF.
WHITE CLIP LVL	90% : 109%	USER ENG	For setting the white clipping level.
A. KNEE POINT	80% : 95% : 107%	USER ENG	For setting the auto knee point position.
A. KNEE LVL	100 : 108 : 110	USER ENG	For setting the maximum auto knee level.

The underlining in the variable range column indicates the setting in the preset mode.

GAMMA screen

The gamma settings of the camera are performed on this screen.

Item	Variable range	VF display	Remarks
R GAMMA	–15 : +0 : +15	USER ENG	Amount by which the R channel gamma is corrected in respect of the master gamma level.
B GAMMA	–15 : +0 : +15	USER ENG	Amount by which the B channel gamma is corrected in respect of the master gamma level.

CAMERA SETTING screen

The basic settings of the camera are set to ON or OFF on this screen.

Item	Variable range	VF display	Remarks
DETAIL	ON OFF	USER ENG	For setting the detail (H, V) to ON or OFF. (Both the H detail and V detail are simultaneously set to either ON or OFF.)
HIGH COLOR	ON OFF	USER ENG	For setting the mode for expanding the dynamic range of the colors to ON or OFF. At the ON setting, the colors above the knee point are boosted.
GAMMA	ON OFF	USER ENG	For setting the gamma correction to ON or OFF.
TEST SAW	ON OFF	USER ENG	For setting the test signal to ON or OFF.
FLARE	ON OFF	USER ENG	For setting the flare compensation to ON or OFF.
H-F COMPE	ON OFF	USER ENG	For setting the high-range frequency compensation mode to ON or OFF.
D4300 K	ON OFF	USER ENG	For setting the 4300 K presetting for the white balance to ON or OFF.

The underlining in the variable range column indicates the setting in the preset mode.

VF DISPLAY screen

The information to be displayed inside the viewfinder is set on this screen.

Item	Variable range	VF display	Remarks
DISP CONDITION	NORMAL HOLD	USER ENG	**NORMAL:** The statuses are displayed at all times. **HOLD:** The statuses are displayed when MODE CHECK SW is ON.
DISP MODE	1 2 3	USER ENG	Change / Display 1 2 3: FILTER × × ○ GAIN × × ○ AWB × × ○ AUTO KNEE SW × ○ ○ SHUTTER × ○ ○ ABB STATUS × ○ ○ AWB STATUS × ○ ○
VF OUT	Y NAM R G B	USER ENG	For selecting VF OUT. NAM (N Additive Mix): The signal with the highest level among the R, G and B signals is output.
VF DTL	0 : 4	USER ENG	For selecting VF DTL. The detail of the signals for VF is further boosted. At the “0” setting, the detail is the same as the unit’s.
ZEBRA1 DETECT	50% : 70% : 110%	USER ENG	For setting the ZEBRA1 detection level (IRE level).
ZEBRA2 DETECT	50% : 85% : 110%	USER ENG	For setting the ZEBRA2 detection level (IRE level).
ZEBRA2	ON OFF SPOT	USER ENG	For setting ZEBRA2 to ON or OFF and selecting SPOT. **<Note>** When used at the “SPOT” setting, ensure that the ZEBRA2 DETECT value is set higher than the ZEBRA1 DETECT value. If the ZEBRA2 DETECT value is lower than the ZEBRA1 DETECT value, the ZEBRA display will not appear.

Item	Variable range	VF display	Remarks
LOW LIGHT LVL	OFF 20% 25% : 40% 45%	USER ENG	For selecting the light level for the LOW LIGHT display when the amount of light entering the camera is too low.

VF MARKER screen

The information to be displayed inside the viewfinder is set on this screen.

Item	Variable range	VF display	Remarks
SAFETY ZONE	OFF : 3 : 12	USER ENG	For selecting the safety zone display. **1 :** 80% and 90% corner display **2 :** 80% corner display **3 :** 90% corner display **4 :** 80% and 90% box display **5 :** 80% box display **6 :** 90% box display **7 :** 80% and 90% corner display in 4:3 mode **8 :** 80% corner display in 4:3 mode **9 :** 90% corner display in 4:3 mode **10 :** 80% and 90% box display in 4:3 mode **11 :** 80% box display in 4:3 mode **12 :** 90% box display in 4:3 mode
CENTER MARK	ON OFF	USER ENG	For setting the center marker display to ON or OFF.
FRAME SIG	4 : 3 13 : 9 14 : 9	USER ENG	For selecting the frame marker display.
MARK	ON OFF	USER ENG	For setting the frame marker display to ON or OFF.
LVL	0 : 15	USER ENG	For setting the picture levels on the outside of the frame marker.

The underlining in the variable range column indicates the setting in the preset mode.

VF INDICATOR screen

The information to be displayed inside the viewfinder is set on this screen.

Item	Variable range	VF display	Remarks
EXTENDER	ON OFF	USER ENG	For setting the extender display to ON or OFF.
SHUTTER	ON OFF	USER ENG	For setting the shutter speed display to ON or OFF.
FILTER	ON OFF	USER ENG	For setting the filter No. display to ON or OFF.
WHITE	ON OFF	USER ENG	For setting the AWB PRE/A/B display to ON or OFF.
GAIN	ON OFF	USER ENG	For setting the currently selected gain display to ON or OFF.
IRIS	IRIS S+IRIS OFF	USER ENG	**IRIS :** Only the aperture value is displayed. **S+IRIS :** Both the super iris ON status and the aperture value are displayed. **OFF :** Neither the super iris ON status nor the aperture value is displayed.
CAMERA ID	ON OFF	USER ENG	For setting the ID display during color bar displaying.
ZOOM LVL	ON OFF	USER ENG	For setting the zoom position value display to ON or OFF.
COLOR TEMP	ON OFF	USER ENG	For setting the color temperature display to ON or OFF.

CAMERA ID screen

The camera ID is set on this screen.

Item	Variable range	VF display	Remarks
ID: ✳✳✳✳✳ ✳✳✳✳✳	——	ENG	For inputting the camera ID (max. 10 characters). **<Note>** Select whether this setting is to be mixed by selecting ON or OFF for CAMERA ID on the VF DISPLAY screen.

1. Turn the JOG dial button to move the cursor to the ID position.
2. When the JOG dial button is pressed, the cursor starts flashing.
3. Turn the JOG dial button to select the character.
   Turn the JOG dial button until the character to be set appears. When the button is turned, the character displayed is switched in the following sequence:
   Space: □
   ⬇
   letters: A—Z
   ⬇
   numbers: 0—9
   ⬇
   symbols: ’, >, <, /, –
4. Press the JOG dial button to enter the character.
5 Turn the JOG dial button to move the cursor to the next character position (right).
6. When the JOG dial button is pressed, the cursor starts flashing.
7. Turn the JOG dial button to select the character, and press the button to enter it.

The underlining in the variable range column indicates the setting in the preset mode.

SHUTTER SPEED screen

The shutter speed is set on this screen.

Item	Variable range	VF display	Remarks
SYNCHRO SCAN	ON OFF	ENG	For setting the synchro scan shutter speed.
1/100	ON OFF	ENG	For switching the 1/100 shutter speed setting to ON or OFF.
1/120	ON OFF	ENG	For switching the 1/120 shutter speed setting to ON or OFF.
1/250	ON OFF	ENG	For switching the 1/250 shutter speed setting to ON or OFF.
1/500	ON OFF	ENG	For switching the 1/500 shutter speed setting to ON or OFF.
1/1000	ON OFF	ENG	For switching the 1/1000 shutter speed setting to ON or OFF.
1/2000	ON OFF	ENG	For switching the 1/2000 shutter speed setting to ON or OFF.

! LED screen

The display of the ⊘ lamp which appears inside the viewfinder is set to ON or OFF on this screen.

Item	Variable range	VF display	Remarks
GAIN (0 dB)	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when the gain level is other than 0 dB.
GAIN (–3 dB)	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when the gain level is other than –3 dB.
SHUTTER	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when the shutter is ON.
WHITE PRESET	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when PRESET is selected as the AWB channel setting.
EXTENDER	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when the lens has been set to the EXTENDER mode.
FILTER	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when a filter other than 3200 K is used.
BLACK STR	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when black stretch has been set to ON.
D4300 K	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when the preset white balance level is 4300 K.
MATRIX	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when matrix has been set to ON.
COLOR CORRECTION	ON OFF	USER ENG	For setting whether the ⊘ lamp is to be turned on when color correction has been set to ON.

<Note>
When ON has been selected for both GAIN (0 dB) and GAIN (–3 dB), the ⊘ lamp will light at all gain levels except for –3 dB and 0 dB.

The underlining in the variable range column indicates the setting in the preset mode.

CAMERA SW MODE screen

The modes of the camera switches are set on this screen.

Item	Variable range	VF display	Remarks
FILTER INH	ON OFF	USER ENG	For selecting whether or not the data in the AWB memories (channel A, channel B) is to be held for each filter. **ON:** Only the channel A and channel B memories (2 memories) regardless of the filter. **OFF:** The data is held for each of the filters (4×2 = 8 memories).
SHOCKLESS AWB	OFF NORMAL SLOW FAST	USER ENG	For selecting the SHOCKLESS AWB setting. "SHOCKLESS AWB" means that the switching of the WHITE BAL switch to A, B or PRST is not accompanied by a shock. FAST (high-speed: approx. 0.5 sec.), NORMAL (normal speed: approx. 1 sec.) or SLOW (slow: approx. 3 sec.) can be set for this effect.
COLOR BARS	SMPTE FULL BARS	USER ENG	For selecting the color bar signals. **SMPTE:** SMPTE color bars **FULL BARS:** Full color bars
S. GAIN OFF	S.GAIN L/M/H	USER ENG	For selecting the method for releasing the super gain mode. **S.GAIN:** The mode is released by the super gain switch only. **L/M/H:** The mode is released by changing the L/M/H switch setting.
USER1 SW	INH S.GAIN S.IRIS S.BLK S.STR AUDIO CH1 AUDIO CH2	USER ENG	For allocating the functions in USER1 SW.
USER2 SW	INH S.GAIN S.IRIS S.BLK S.STR AUDIO CH1 AUDIO CH2	USER ENG	For allocating the functions in USER2 SW.
S. BLK LVL	OFF –10 –20 –30	USER ENG	For setting the super black level.
ECU DATA SAVE	ON OFF	USER ENG	**ON :** The data controlled by the ECU is stored in the memory. **OFF :** The data is not stored in the memory.

SUPER GAIN screen

The gain allocated to the SUPER GAIN switch is set on this screen.

Item	Variable range	VF display	Remarks
S. GAIN VALUE	18dB 24dB 30dB 36dB	USER ENG	For selecting the gain when the SUPER GAIN switch is pressed.

The underlining in the variable range column indicates the setting in the preset mode.

CAM CARD READ/WRITE screen

The settings for saving (writing) the menu data on the setup card, loading (reading) the data from the card, and configuring the card are performed on this screen.

Item	Variable range	VF display	Remarks
SELECT	1 : 8	USER ENG	For selecting the number of the file to be loaded.
READ	———	USER ENG	For loading the data from the setup card.
SELECT	1 : 8	USER ENG	For selecting the number of the file to be saved.
WRITE	———	USER ENG	For saving the camera's data on the setup card.
CARD CONFIG	———	USER ENG	For formatting the setup card.
READ USER DATA	———	USER ENG	For loading the user area data of the camera's memory.
TITLE	———	USER ENG	A title consisting of up to 8 characters can be given to each file.

CAM CARD R/W SELECT screen

The settings for saving (recording) specific menu data on the setup card and loading (reading) the data from the card are performed on this screen.

Item	Variable range	VF display	Remarks
ID READ/WRITE	ON OFF	USER ENG	For setting camera ID saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The camera ID is recorded/loaded. **OFF :** The camera ID is not recorded/loaded. **Example:** If the CAMERA ID contents are not to be changed when setup card data is saved/loaded, select OFF as the ID READ/WRITE setting.

CAM CARD R/W SELECT screen

Item	Variable range	VF display	Remarks
CAM MAIN MENU1 LEVEL R/W	ON OFF	USER ENG	For setting CAM MAIN MENU 1 (items other than those marked with ▮) data saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The data is recorded/loaded. **OFF :** The data is not recorded/loaded. **<Note>** See page 73 for information on the items marked with ▮.
CAM MAIN MENU1 SW (▮) R/W	ON OFF	USER ENG	For setting CAM MAIN MENU 1 (items marked with ▮) data saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The data is recorded/loaded. **OFF :** The data is not recorded/loaded.
CAM MAIN MENU2 R/W	ON OFF	USER ENG	For setting CAM MAIN MENU 2 data saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The data is recorded/loaded. **OFF :** The data is not recorded/loaded.
CAM MAIN MENU3 R/W	ON OFF	USER ENG	For setting CAM MAIN MENU 3 data saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The data is recorded/loaded. **OFF :** The data is not recorded/loaded.
CAM MAIN MENU4 R/W	ON OFF	USER ENG	For setting CAM MAIN MENU 4 data saving/loading when writing data onto the setup card or loading data from it to ON or OFF. **ON :** The data is recorded/loaded. **OFF :** The data is not recorded/loaded.

The underlining in the variable range column indicates the setting in the preset mode.

GENLOCK/IRIS screen

The genlock and iris control settings are performed on this screen.

Item	Variable range	VF display	Remarks
H PHASE COARSE	0 : 7 : 15	USER ENG	For coarsely adjusting the H phase during genlock.
H PHASE FINE	0 : 32 : 64	USER ENG	For finely adjusting the H phase during genlock.
A. IRIS LEVEL	0 : 82 : 100	USER ENG	For setting the auto iris target level. The brightness (iris) is controlled using this value. The higher the value selected, the higher the brightness.
A. IRIS PEAK/AVE	0 : 16 : 100	USER ENG	For setting the ratio between the auto iris peak and average value. The closer the setting is to 0, the greater the tendency toward average control; conversely, the closer the setting is to 100, the greater the tendency toward peak control.
A. IRIS MODE	NORM1 NORM2 CENTR	USER ENG	For selecting the auto iris mode. **NORM1:** The light is measured for the entire screen (except for the edges). **NORM2:** The light is measured for the entire screen (except for the top part). **CENTR:** The light is measured in the center area of the screen only.
S. IRIS LEVEL	0 : 100	USER ENG	For setting the super iris target level. (Backlight compensation mode)

LENS ADJ screen

The lens adjustments are performed on this screen.

Item	Variable range	VF display	Remarks
F2.8 ADJ	ON OFF	ENG	For outputting the voltage output only when ON is selected as this item's setting.
F16 ADJ	ON OFF	ENG	For outputting the voltage output only when ON is selected as this item's setting.

<Note>
When using a lens which enables the open limit and close limit of the lens aperture to be adjusted, set "F2.8ADJ" or "F16ADJ" to ON, and repeatedly adjust so that the lens aperture will be set to "F2.8" or "F16."
(This adjustment need not be performed if the lens does not have this adjustment function.)

The underlining in the variable range column indicates the setting in the preset mode.

CAM USER MENU SELECT 1, 2 and 3 screens

The settings for registering the items (the same as the ones on the CAM MAIN MENU 1, 2 and 3 screens) allocated to the SUB menus to the SUB MENU screen are performed on this screen.
Registration ON (✳) or OFF (●) is set at the head of each item.
Up to 42 camera unit items can be registered.

CAM USER MENU SELECT 1 screen

SUB menu	VF display	Remarks
ROP	ENG	Index for opening the ROP screen.
LOW SETTING	ENG	Index for opening the LOW SETTING screen.
MID SETTING	ENG	Index for opening the MID SETTING screen.
HIGH SETTING	ENG	Index for opening the HIGH SETTING screen.
ADDITIONAL DTL1	ENG	Index for opening the ADDITIONAL DTL1 screen.
ADDITIONAL DTL2	ENG	Index for opening the ADDITIONAL DTL2 screen.
SKIN TONE DTL	ENG	Index for opening the SKIN TONE DTL screen.
KNEE/LEVEL	ENG	Index for opening the KNEE/LEVEL screen.
GAMMA	ENG	Index for opening the GAMMA screen.
CAMERA SETTING	ENG	Index for opening the CAMERA SETTING screen.

CAM USER MENU SELECT 2 screen

SUB menu	VF display	Remarks
VF DISPLAY	ENG	Index for opening the VF DISPLAY screen.
VF MARKER	ENG	Index for opening the VF MARKER screen.
VF INDICATOR	ENG	Index for opening the VF INDICATOR screen.
!LED	ENG	Index for opening the !LED screen.
CAMERA SW MODE	ENG	Index for opening the CAMERA SW MODE screen.
SUPER GAIN	ENG	Index for opening the SUPER GAIN screen.

CAM USER MENU SELECT 3 screen

SUB menu	VF display	Remarks
CAM CARD READ/WRITE	ENG	Index for opening the CAM CARD READ/WRITE screen.
CAM CARD R/W SELECT	ENG	Index for opening the CARD R/W SELECT screen.
GENLOCK/IRIS	ENG	Index for opening the GENLOCK/IRIS screen.

BLACK SHADING screen

The black shading adjustments are performed on this screen.

Item	Variable range	VF display	Remarks
DETECTION	———	ENG	For execution of the digital shading compensation.
CORRECT (DIG)	ON OFF	ENG	For setting the digital shading compensation to ON or OFF.

FLARE screen

The camera's flare settings are performed on this screen.

Item	Variable range	VF display	Remarks
R FLARE	0 : 100	ENG	For setting the R channel flare; the preset value differs from one camera to another.
G FLARE	0 : 100	ENG	For setting the G channel flare; the preset value differs from one camera to another.
B FLARE	0 : 100	ENG	For setting the B channel flare; the preset value differs from one camera to another.

WHITE SHADING screen

The white shading adjustments are performed on this screen.

Item	Variable range	VF display	Remarks
DETECTION (V SAW)	———	ENG	For execution of the analog shading compensation.
CORRECT	ON OFF	ENG	For setting the shading compensation to ON or OFF.

COLORIMETRY screen

The luminance signal standard is selected on this screen.

Item	Variable range	VF display	Remarks
MATRIX	SMPTE-274 SMPTE-240 NTSC	ENG	For selecting the luminance signal standard.

The underlining in the variable range column indicates the setting in the preset mode.

INITIALIZE screen

The camera menu settings are initialized and scene files are saved on this screen.

Item	Variable range	VF display	Remarks
READ FACTORY DATA	———	ENG	For restoring the camera menu data settings to the factory settings.
WRITE USER DATA	———	ENG	For saving the user's own camera menu data in the unit's memory.
SCENE SEL	1 : 4	ENG	For designating the number of the scene file.
READ	———	ENG	For loading the scene file whose SCENE SEL was designated.
WRITE	———	ENG	For saving data in the scene file whose SCENE SEL was designated.
RESET	———	ENG	For restoring the scene file data settings to the factory settings.
TITLE 1	———	ENG	For setting the title in scene file No.1.
TITLE 2	———	ENG	For setting the title in scene file No.2.
TITLE 3	———	ENG	For setting the title in scene file No.3.
TITLE 4	———	ENG	For setting the title in scene file No.4.

DIAGNOSTIC screen

The usage statuses and software versions are displayed on this screen.

Item	Variable range	VF display	Remarks
CAMSOFT (IN)	———	ENG	For displaying the version of the software for the built-in flash memory.
CAMSOFT (OUT)	———	ENG	For displaying the version of the software for the external flash memory.
GAMMA GAIN	———	ENG	For displaying the version of the gamma table.
GAMMA RAM	———	ENG	For displaying the version of the black gamma table.
KNEE	———	ENG	For displaying the version of the knee table.
ALC	———	ENG	For displaying the version of the auto luminance control.
PLD	———	ENG	For displaying the version of the software for PLD.

EVALUATION screen

The items which are measured for evaluation purposes are set on this screen.
(S/N, MODULATION, RESOLUTION, SENSITIVITY)

SUB menu	VF display	Remarks
S/N	ENG	Index for opening the S/N measurement screen.
MODULATION	ENG	Index for opening the modulation measurement screen.
RESOLUTION	ENG	Index for opening the resolution measurement screen.
SENSITIVITY	ENG	Index for opening the sensitivity measurement screen.

OPTION screen

The engineer menu display is selected on this screen.

Item	Variable range	VF display	Remarks
ENG SECURITY	ON OFF	ENG	For selecting whether to display the engineer menu. **ON :** The engineer menu is not displayed. **OFF :** The engineer menu is displayed.
SHD, ABB SW CRTL	ON OFF	ENG	For selecting whether to automatically correct black shading when the AUTO W/B BAL switch is pressed continuously for 8 seconds or more on the ABB side. **ON :** Black shading is corrected automatically. **OFF :** Black shading is not corrected automatically.
AWB AREA	90% 50%	ENG	This selects the white balance search area.

<Note>
For details on how to release ENG SECURITY, consult your nearest service center.

The underlining in the variable range column indicates the setting in the preset mode.

EVALUATION screen

● S/N measurement screen

The S/N measurements are performed on this screen.

Item	Variable range	VF display	Remarks
S/N	ON	ENG	For setting the S/N measurement.
DETAIL	ON OFF	ENG	For setting the DETAIL to ON or OFF.
H-F COMPE.	ON OFF	ENG	For setting the high-frequency compensation to ON or OFF.
GAMMA	ON OFF	ENG	For setting the GAMMA to ON or OFF.
MATRIX	ON OFF	ENG	For setting the MATRIX to ON or OFF.
FLARE	ON OFF	ENG	For setting the FLARE to ON or OFF.
M. PED	–200 : +140 : +200	ENG	For adjusting the master pedestal level.

● Resolution measurement screen

The resolution measurements are performed on this screen.

Item	Variable range	VF display	Remarks
RESOLUTION	ON	ENG	For setting the resolution measurement.
DETAIL	ON OFF	ENG	For setting the DETAIL to ON or OFF.
H-F COMPE.	ON OFF	ENG	For setting the high-frequency compensation to ON or OFF.
GAMMA	ON OFF	ENG	For setting the GAMMA to ON or OFF.
MATRIX	ON OFF	ENG	For setting the MATRIX to ON or OFF.
FLARE	ON OFF	ENG	For setting the FLARE to ON or OFF.
M. PED	–100 : +18 : +100	ENG	For adjusting the master pedestal level.

● Modulation measurement screen

The modulation measurements are performed on this screen.

Item	Variable range	VF display	Remarks
MODULATION	ON	ENG	For setting the modulation measurement.
DETAIL	ON OFF	ENG	For setting the DETAIL to ON or OFF.
H-F COMPE.	ON OFF	ENG	For setting the high-frequency compensation to ON or OFF.
GAMMA	ON OFF	ENG	For setting the GAMMA to ON or OFF.
MATRIX	ON OFF	ENG	For setting the MATRIX to ON or OFF.
FLARE	ON OFF	ENG	For setting the FLARE to ON or OFF.
M. PED	–100 : +18 : +100	ENG	For adjusting the master pedestal level.

● Sensitivity measurement screen

The sensitivity measurements are performed on this screen.

Item	Variable range	VF display	Remarks
SENSITIVITY	ON	ENG	For setting the sensitivity measurement.
KNEE	ON OFF	ENG	For setting the KNEE to ON or OFF.
W. CLIP	ON OFF	ENG	For setting the white clip to ON or OFF.
M. PED	–100 : +18 : +100	ENG	For adjusting the master pedestal level.

The underlining in the variable range column indicates the setting in the preset mode.

VTR MAIN MENU screen

SUB menu	VF display	Remarks
FUNCTION	ENG	Index for opening the FUNCTION screen.
BATTERY/ TAPE	ENG	Index for opening the BATTERY/TAPE screen.
BATTERY SETTING	ENG	Index for opening the BATTERY SETTING screen.
VTR VF INDICATOR	ENG	Index for opening the VTR VF INDICATOR screen.
MIC/AUDIO	ENG	Index for opening the MIC/AUDIO screen.
TC/UB	ENG	Index for opening the TC/UB screen.
TIME/DATE	ENG	Index for opening the TIME/DATE screen.
VTR USER MENU SELECT	ENG	Index for opening the VTR USER MENU SELECT screen.
VTR CARD READ/WRITE	ENG	Index for opening the VTR CARD READ/WRITE screen.
VTR INITIALIZE	ENG	Index for opening the VTR INITIALIZE screen.
DIAGNOSTIC	ENG	Index for opening the VTR DIAGNOSTIC screen.

FUNCTION screen

The VTR's functions are set on this screen.

Item	Variable range	VF display	Remarks
NEWS REC MODE	<u>OFF</u> 0.2 : 2.0	USER ENG	For selecting the VTR START button acknowledgment time during recording. **OFF:** The pressing of the VTR START button is acknowledged immediately, recording is stopped, and the unit is set to the REC PAUSE mode. **0.2—2.0:** The pressing of the VTR START button is not acknowledged and recording is continued for the time set (in increments of 0.2 sec.).
HUMID OPE	ON <u>OFF</u>	USER ENG	For selecting the VTR operation when condensation has formed. **ON :** Operation is continued as usual. **OFF :** Operation of all controls except the POWER switch and EJECT button is inhibited.
REC START	ALL <u>NORMAL</u>	USER ENG	For selecting acknowledgement of recording started by the VTR START button. **ALL:** The start of the recording is acknowledged regardless of the VTR mode. **NORMAL:** The start of the recording is acknowledged only in the STOP (POWER SAVE) mode and REC PAUSE mode.
PAUSE TIMER	10 20 <u>30</u> 60	USER ENG	For selecting the amount of time REC PAUSE is to be held. **10/20/30/60:** 10, 20, 30 or 60 minutes.
RETAKE MODE	ON <u>OFF</u>	USER ENG	Functions for rewinding the tape to the position where recording started. **ON :** The RETAKE function works. **OFF :** The RETAKE function does not work. **<Note>** The RETAKE function is set OFF when the unit's power switch has been set to ON.

Item	Variable range	VF display	Remarks
HD SDI OUT	ON SIDE SW <u>AUTO</u> OFF	USER ENG	For controlling the output signals of the HD SDI OUT connector. However, ON or OFF cannot be selected for these signals during recording: the status prior to the start of the recording is maintained. **ON:** The signals are forcibly output. However, the signals are output in the EE/PB mode when the MONITOR OUT SDI switch on the side panel is set to OFF. **SIDE SW:** The signals are not output when the MONITOR OUT SDI switch on the side panel is set to OFF. **AUTO:** The signals are output when the connector has been connected to the output connector. However, the signals are output in the EE/PB mode when the MONITOR OUT SDI switch on the side panel is set to OFF. **OFF:** The output is stopped.
INTERVAL REC MODE	ON <u>OFF</u>	USER ENG	For selecting the intermittent recording mode. **ON:** Intermittent recording is performed. **OFF:** Intermittent recording is not performed. **<Note>** Intermittent recording is set OFF when the unit's power switch has been set to ON.
INTERVAL REC TIME	<u>00s10f</u> : 59s29f	USER ENG	For setting the REC time for intermittent recording. **<Note>** When REC time is set at less than 1 second, the initial recording time will be 1 second.
INTERVAL PAUSE TIME	<u>00h00m02s</u> : 23h59m59s	USER ENG	For setting the REC PAUSE time for intermittent recording.

The underlining in the variable range column indicates the setting in the preset mode.

BATTERY/TAPE screen

The warning tone which signals the remaining battery charge and remaining tape and which is heard during shooting can be switched off if they prove to be distracting.

Item	Variable range	VF display	Remarks
BATTERY SELECT	AJ-BP490 AU-BP402 HP-30A PRO14 TRIM14 TRIM13 DIGITAL14 DIGITAL13 BP-H90 BP-H100 NP-L40 NP-L40 D BP-L60/90 NP-1B	USER ENG	For selecting the type of battery used. **AJ-BP490** : AJ-BP490 battery **AU-BP402** : AU-BP402 battery **HP-30A** : PACO HP-30A battery **PRO14** : Anton/Bauer PRO14 battery **TRIM14** : Anton/Bauer TRIM14 battery **TRIM13** : Anton/Bauer TRIM13 battery **DIGITAL14** : Anton/Bauer DIGITAL battery (14V) **DIGITAL13** : Anton/Bauer DIGITAL battery (13V) **BP-H90** : IDX BP-H90 battery **BP-H100** : IDX BP-H100 battery **NP-L40** : IDX NP-L40 battery **NP-L40D** : IDX NP-L40D battery **BP-L60/90** : Sony BP-L60/90 battery **NP-1B** : Sony NP-1B battery
EXT DC IN SELECT	AC-ADPT AJ-BP490 AU-BP402 HP-30A PRO14 TRIM14 TRIM13 BP-H90 BP-H100 NP-L40 BP-L60/90 NP-1B	USER ENG	For setting the power supply to be used. The AC adapter or the battery selected on the BATTERY SELECT screen is set.

Item	Variable range	VF display	Remarks
BATT NEAR END ALARM	ON OFF	USER ENG	For setting the warning tone heard when the battery is near the end of its charge to ON or OFF.
BATT NEAR END CANCEL	ON OFF	USER ENG	For switching the function which cancels the warning tone heard when the battery is near the end of its charge to ON or OFF using the MODE switch.
BATT END ALARM	ON OFF	USER ENG	For setting the warning tone heard when the battery is at the end of its charge to ON or OFF.
BATT REMAIN FULL	100% 70%	USER ENG	For selecting the battery capacity at which “FULL” is to appear on the LCD display window as the remaining battery display (for all 7 segments to be lighted).
TAPE NEAR END ALARM	ON OFF	USER ENG	For setting the warning tone heard when the end of the tape is near to ON or OFF.
TAPE NEAR END TIME	3min 2min	USER ENG	For setting the remaining tape time for which the warning tone is to be heard when the end of the tape is near.
TAPE END ALARM	ON OFF	USER ENG	For setting the warning tone heard when the tape has reached its end to ON or OFF.
TAPE REMAIN/■	3min/■ 5min/■	USER ENG	For setting the time for one segment of the remaining tape display indicated on the LCD display window. **3min/■** : One segment is set to 3 minutes. **5min/■** : One segment is set to 5 minutes.

The underlining in the variable range column indicates the setting in the preset mode.

BATTERY SETTING screen

The type of battery to be used is selected and its settings are performed on this screen.

Item	Variable range	VF display	Remarks
AJ-BP490	MANUAL AUTO	ENG	For setting the AJ-BP490 and the PACO HP-90A battery.
AU-BP402	MANUAL AUTO	ENG	For setting the AU-BP402 battery.
HP-30A	MANUAL AUTO	ENG	For setting the PACO HP-30A battery.
PRO14	MANUAL AUTO	ENG	For setting the Anton/Bauer PRO14 battery.
TRIM14	MANUAL AUTO	ENG	For setting the Anton/Bauer TRIM14 battery.
TRIM13	MANUAL AUTO	ENG	For setting the Anton/Bauer TRIM13 battery.
DIGITAL14	MANUAL AUTO	ENG	For setting the Anton/Bauer digital battery (14V).
DIGITAL13	MANUAL AUTO	ENG	For setting the Anton/Bauer digital battery (13V).
BP-H90	MANUAL AUTO	ENG	For setting the IDX BP-H90 battery made by.
BP-H100	MANUAL AUTO	ENG	For setting the IDX BP-H100 battery.
NP-L40	MANUAL AUTO	ENG	For setting the IDX NP-L40 battery.
NP-L40 D	MANUAL AUTO	ENG	For setting the IDX NP-L40D battery.
BP-L60/90	MANUAL AUTO	ENG	For setting the Sony BP-L60/90 battery.
NP-1B	MANUAL AUTO	ENG	For setting the Sony NP-1B battery.

1. Either "∗" or "●" appears in front of each item to indicate whether the item is set to ON or OFF.
   ∗ : ON
   ● : OFF
2. Each time the JOG dial button is pressed, the setting moves in the following sequence:

ON/OFF setting

↓

AUTO/MANUAL setting

AUTO : The NEAR END voltage value preset in each battery is used.

MANUAL : The NEAR END voltage setting for each battery can be changed.

↓

NEAR END voltage setting

↓

Item movement

The underlining in the variable range column indicates the setting in the preset mode.

VTR VF INDICATOR screen

The information to be displayed in the viewfinder is set on this screen.

Item	Variable range	VF display	Remarks
TAPE (IND)	ON OFF	USER ENG	For switching the remaining tape display to ON or OFF.
BATTERY (IND)	ON OFF	USER ENG	For switching the battery voltage display to ON or OFF.
LEVEL METER (IND)	CH1 CH1•CH2 OFF	USER ENG	For selecting what the audio level meter is to display. **CH1:** The level of the CH1 signals only is displayed. **CH1•CH2:** The levels of both the CH1 and CH2 signals are displayed. **CH2:** The level of the CH2 signals only is displayed. **OFF:** No display.
AUDIO IN (IND)	ON OFF	USER ENG	For switching the audio input display to ON or OFF. **ON :** The audio input is displayed. **OFF :** The audio input is not displayed.
TC (IND)	ON OFF	USER ENG	For switching the time code display to ON or OFF. **ON :** The time code is displayed. **OFF :** The time code is not displayed.
VTR WARNING (IND)	ALWAYS NORMAL OFF	USER ENG	For setting when the VTR's warnings are to be displayed. **ALWAYS:** The warning display always appears when a warning has occurred. **NORMAL:** The display appears for 3 seconds after the warning occurred and for 3 seconds after recording was started or completed. **OFF:** The warning displays do not appear.
SAVE LED	SAVE&TAPE SAVE	USER ENG	For setting the operation of the SAVE lamp. **SAVE:** This lights when the VTR SAVE/STBY switch has been set to SAVE. It goes off during recording. **SAVE&TAPE:** This lights when the VTR SAVE/STBY switch has been set to SAVE. It goes off during recording. When the tape is approaching its end, it flashes in tandem with the warning alarm that sounds when tape-end is approaching.

MIC/AUDIO screen

The MIC/AUDIO settings are performed on this screen.

Item	Variable range	VF display	Remarks
FRONT MIC POWER	ON OFF	USER ENG	**ON :** The phantom power is supplied to the front microphone. **OFF :** The phantom power is not supplied to the front microphone.
MIC LOWCUT CH1	FRONT REAR F&R OFF	USER ENG	For setting the high-pass filter for the CH1 mic input. **FRONT:** The high-pass filter for the front mic input is set to ON. **REAR :** The high-pass filter for the rear mic input is set to ON. **F&R :** The high-pass filters for both the front and rear mic inputs are set to ON. **OFF :** The high-pass filter for the CH1 input is set to OFF.

<Note>
The frequency characteristics in the MIC LOWCUT ON mode are 200 Hz to 10 kHz.

The underlining in the variable range column indicates the setting in the preset mode.

MIC/AUDIO screen

The MIC/AUDIO settings are performed on this screen.

Item	Variable range	VF display	Remarks
MIC LOWCUT CH2	FRONT REAR F&R OFF	USER ENG	For setting the high-pass filter for the CH2 mic input. **FRONT :** The high-pass filter for the front mic input is set to ON. **REAR :** The high-pass filter for the rear mic input is set to ON. **F&R :** The high-pass filters for both the front and rear mic inputs are set to ON. **OFF :** The high-pass filter for the CH2 input is set to OFF.
LIMITER	ON OFF	USER ENG	For switching the audio limiter to ON or OFF. **ON :** The limiter operates. **OFF :** The limiter does not operate.
TEST TONE	NORMAL ALWAYS OFF CHSEL	USER ENG	**NORMAL:** The test tone signal is output when the AUDIO IN switch for CH1 is set to front while BAR is selected as the CAM/BAR switch setting. **ALWAYS:** The test tone signal is always output when BAR is selected as the CAM/BAR switch setting. **OFF:** The test tone signal is not output. **CHSEL:** The test tone signal is output for the selected channel when the AUDIO IN switch CH1 or CH2 is set to front while BAR is selected as the CAM/BAR switch setting.

Item	Variable range	VF display	Remarks
REC CH3/CH4	CH1/2 CH3/4	USER ENG	For setting the audio signals to be recorded on the CH3 track and CH4 track. **CH1/2:** The CH1 signal is recorded on the CH3 track, and the CH2 signal is recorded on the CH4 track. **CH3/4:** The CH3 and CH4 signals which are supplied from the camera adapter are recorded.
CUE SELECT	SIDE SW CH1 CH2 MIX	USER ENG	For setting the audio signals to be recorded on the cue track. **SIDE SW:** The signals selected by the CUE switch on the side panel are recorded. **CH1:** The CH1 signals are recorded. **CH2:** The CH2 signals are recorded. **MIX:** The CH1 and CH2 mixed signals are recorded.
CUE REC	ON OFF	USER ENG	For setting whether signals are to be recorded on the cue track. **ON :** The signals will be recorded on the cue track. **OFF :** The signals will not be recorded on the cue track. The power-saving mode is established.

<Note>
The frequency characteristics in the MIC LOWCUT ON mode are 200 Hz to 10 kHz.

The underlining in the variable range column indicates the setting in the preset mode.

TC/UB screen

The time code and user's bit settings are performed on this screen.

Item	Variable range	VF display	Remarks
TC MODE	DF NDF	USER ENG	For setting the time code to the DF or NDF mode. **DF :** The time code is set to the drop frame mode. **NDF :** The time code is set to the non-drop frame mode.
UB MODE	USER DATE TIME EXT TCG	USER ENG	For setting what is to be written as the user's bit in the LTC area. **USER :** User setting (fixed). **DATE :** Real time value for year/month/day/hours. **TIME :** Real time value for hours/minutes/seconds. **EXT :** The UBG value is slave-locked when a TC signal is supplied from an external source. (The user setting is used when no external input is supplied.) **TCG :** Time code generator value **<Note>** Set the time on the TIME/DATE menu screen when using the UB MODE item with real-time operation.
TCG SET HOLD	ON OFF	USER ENG	For selecting the operation of TCG when the TCG SET ➧ power OFF ➧ power ON ➧ REC operations are performed. **ON :** The TCG setting is stored when the power is turned off, and is not regenerated. **OFF :** The TCG setting is not stored when the power is turned off, but is regenerated.
FIRST REC TC	REGEN PRESET	USER ENG	For setting the TC REGEN mode when recording is started. **REGEN:** The time code set on the tape is regenerated. **PRESET:** The time code set on the tape is not regenerated. However, it is forcibly regenerated when the unit is transferred from the rec-pause mode to the recording mode.
P. OFF LCD DISPLAY	ON OFF	USER ENG	For setting whether the LCD display is to appear when the power is OFF. **ON :** The LCD display appears even when the power is OFF. **OFF :** The LCD display does not appear when the power is OFF. The power-saving mode is established.
TC OUT	TCG TCG/TCR	USER ENG	For selecting the time code which is to be output to the time code output connector. **TCG:** The time code generated by the time code generator is output at all times. **TCG/TCR:** The time code generated by the time code generator is output in the E-E mode; the time code reader value is output in the V-V mode.

<Note>
When USER is set for the UB MODE item, it is not possible to set EXT for the VITC UB MODE item.
Similarly, it is not possible to set EXT for the UB MODE item when USER has been set for the VITC UB MODE item.

The underlining in the variable range column indicates the setting in the preset mode.

TC/UB screen

The time code and user's bit settings are performed on this screen.

Item	Variable range	VF display	Remarks
VITC UB MODE	USER DATE TIME EXT TCG	USER ENG	For setting what is to be written as the user's bit in the VITC area. **USER :** User setting (fixed). **DATE :** Real time value for year/month/day/hours. **TIME :** Real time value for hours/minutes/seconds. **EXT :** The UBG value is slave-locked when a TC signal is supplied from an external source. (The user setting is used when no external input is supplied.) **TCG :** Time code generator value **<Note>** Set the time on the TIME/DATE menu screen when using the UB MODE item with real-time operation.

<Note>
When USER is set for the UB MODE item, it is not possible to set EXT for the VITC UB MODE item.
Similarly, it is not possible to set EXT for the UB MODE item when USER has been set for the VITC UB MODE item.

The underlining in the variable range column indicates the setting in the preset mode.

TIME DATE screen

The time/date settings are performed on this screen.

Item	Variable range	VF display	Remarks
YEAR	00—99	ENG	For setting the year.
MONTH	1—12	ENG	For setting the month.
DAY	1—31	ENG	For setting the day.
HOUR	0—23	ENG	For setting the hours.
MINUTE	0—59	ENG	For setting the minutes.
■ TIME/DATE SET	———	ENG	For entering the time and date.

VTR USER MENU SELECT screen

This is the index screen for opening the screens containing the items to be registered on the VTR unit's USER MENU.

SUB menu	VF display	Remarks
FUNCTION	ENG	Index for opening the FUNCTION screen.
BATTERY/TAPE	ENG	Index for opening the BATTERY/TAPE screen.
VTR VF INDICATOR	ENG	Index for opening the VTR VF INDICATOR screen.
MIC/AUDIO	ENG	Index for opening the MIC/AUDIO screen.
TC/UB	ENG	Index for opening the TC/UB screen.

VTR CARD READ/WRITE screen

The settings for saving the menu data onto the setup card and loading the data from it are performed on this screen.

Item	Variable range	VF display	Remarks
READ	———	ENG	For loading the VTR data from the setup card.
WRITE	———	ENG	For saving the VTR data onto the setup card.
READ USER DATA	———	ENG	For loading the VTR user area data contained in the unit's internal memory.

VTR INITIALIZE screen

The VTR MENU settings are initialized and the user data is saved on this screen.

Item	Variable range	VF display	Remarks
READ FACTORY DATA	———	ENG	For returning the menu data to the factory settings.
WRITE VTR USER DATA	———	ENG	For saving the VTR MENU data inherent to the user into the unit's memory.

DIAGNOSTIC screen

The use statuses and software versions are displayed on this screen.

Item	Variable range	VF display	Remarks
OPERATION	———	ENG	Operating time with power ON.
DRUM RUNNING	———	ENG	Number of hours the drum has rotated.
THREADING	———	ENG	Number of times tapes have been loaded.
VTR SYSCON	———	ENG	For displaying the version of the system microcomputer.
SERVO	———	ENG	For displaying the version of the servo microcomputer.
MECHACON	———	ENG	For displaying the version of the mechanism control microcomputer.
FRONT	———	ENG	For displaying the version of the LCD panel drive microcomputer.

The underlining in the variable range column indicates the setting in the preset mode.

Setting menu screens (VTR USER MENU SELECT)

ON (∗) or OFF (●) is set on this screen to determine which items are to be registered on the USER MENU screen.
The maximum number of VTR unit items which can be registered is 14.

FUNCTION screen

Item	Variable range	VF display	Remarks
NEWS REC MODE	∗ ●	ENG	For setting the registration of the NEWS REC MODE item on the USER MENU screen.
HUMID OPE	∗ ●	ENG	For setting the registration of the HUMID OPE item on the USER MENU screen.
REC START	∗ ●	ENG	For setting the registration of the REC START item on the USER MENU screen.
PAUSE TIMER	∗ ●	ENG	For setting the registration of the PAUSE TIMER item on the USER MENU screen.
RETAKE MODE	∗ ●	ENG	For setting the registration of the RETAKE MODE item on the USER MENU screen.
HD SDI OUT	∗ ●	ENG	For setting the registration of the HD SDI OUT item on the USER MENU screen.
INTERVAL REC MODE	∗ ●	ENG	For setting the registration of the INTERVAL REC MODE item on the USER MENU screen.
INTERVAL REC TIME	∗ ●	ENG	For setting the registration of the INTERVAL REC TIME item on the USER MENU screen.
INTERVAL PAUSE TIME	∗ ●	ENG	For setting the registration of the INTERVAL PAUSE TIME item on the USER MENU screen.

BATTERY/TAPE screen

Item	Variable range	VF display	Remarks
BATTERY SELECT	∗ ●	ENG	For setting the registration of the BATTERY SELECT item on the USER MENU screen.
EXT DC IN SELECT	∗ ●	ENG	For setting the registration of the EXT DC IN SELECT item on the USER MENU screen.
BATT NEAR END ALARM	∗ ●	ENG	For setting the registration of the BATT NEAR END ALARM item on the USER MENU screen.
BATT NEAR END CANCEL	∗ ●	ENG	For setting the registration of the BATT NEAR END CANCEL item on the USER MENU screen.
BATT END ALARM	∗ ●	ENG	For setting the registration of the BATT END ALARM item on the USER MENU screen.
BATT REMAIN FULL	∗ ●	ENG	For setting the registration of the BATT REMAIN FULL item on the USER MENU screen.
TAPE NEAR END ALARM	∗ ●	ENG	For setting the registration of the TAPE NEAR END ALARM item on the USER MENU screen.
TAPE NEAR END TIME	∗ ●	ENG	For setting the registration of the TAPE NEAR END TIME item on the USER MENU screen.
TAPE END ALARM	∗ ●	ENG	For setting the registration of the TAPE END ALARM item on the USER MENU screen.
TAPE REMAIN /■	∗ ●	ENG	For setting the registration of the TAPE REMAIN/■ item on the USER MENU screen.

The underlining in the variable range column indicates the setting in the preset mode.

Setting menu screens *(VTR USER MENU SELECT)*

ON (∗) or OFF (●) is set on this screen to determine which items are to be registered on the USER MENU screen.
The maximum number of VTR unit items which can be registered is 14.

VTR VF INDICATOR screen

Item	Variable range	VF display	Remarks
TAPE (IND)	∗ ●	ENG	For setting the registration of the TAPE (VF INDICATOR) item on the USER MENU screen.
BATTERY (IND)	∗ ●	ENG	For setting the registration of the BATTERY (VF INDICATOR) item on the USER MENU screen.
LVEL METER (IND)	∗ ●	ENG	For setting the registration of the LVEL METER (VF INDICATOR) item on the USER MENU screen.
AUDIO IN (IND)	∗ ●	ENG	For setting the registration of the AUDIO IN (VF INDICATOR) item on the USER MENU screen.
TC (IND)	∗ ●	ENG	For setting the registration of the TC (VF INDICATOR) item on the USER MENU screen.
VTR WARNING (IND)	∗ ●	ENG	For setting the registration of the VTR WARNING (VF INDICATOR) item on the USER MENU screen.
SAVE LED	∗ ●	ENG	For setting the registration of the SAVE LED item on the USER MENU screen.

The underlining in the variable range column indicates the setting in the preset mode.

MIC/AUDIO screen

Item	Variable range	VF display	Remarks
FRONT MIC POWER	∗ ●	ENG	For setting the registration of the FRONT MIC POWER item on the USER MENU screen.
MIC LOWCUT CH1	∗ ●	ENG	For setting the registration of the MIC LOWCUT CH1 item on the USER MENU screen.
MIC LOWCUT CH2	∗ ●	ENG	For setting the registration of the MIC LOWCUT CH2 item on the USER MENU screen.
LIMITER	∗ ●	ENG	For setting the registration of the LIMITER item on the USER MENU screen.
TEST TONE	∗ ●	ENG	For setting the registration of the TEST TONE item on the USER MENU screen.
REC CH3/CH4	∗ ●	ENG	For setting the registration of the REC CH3/CH4 item on the USER MENU screen.
CUE SELECT	∗ ●	ENG	For setting the registration of the CUE SELECT item on the USER MENU screen.
CUE REC	∗ ●	ENG	For setting the registration of the CUE REC item on the USER MENU screen.

TC/UB screen

Item	Variable range	VF display	Remarks
TC MODE	∗ ●	ENG	For setting the registration of the TC MODE item on the USER MENU screen.
UB MODE	∗ ●	ENG	For setting the registration of the UB MODE item on the USER MENU screen.
TCG SET HOLD	∗ ●	ENG	For setting the registration of the TCG SET HOLD item on the USER MENU screen.
FIRST REC TC	∗ ●	ENG	For setting the registration of the FIRST REC TC item on the USER MENU screen.
P.OFF LCD DISPLAY	∗ ●	ENG	For setting the registration of the P.OFF LCD DISPLAY item on the USER MENU screen.
TC OUT	∗ ●	ENG	For setting the registration of the TC OUT item on the USER MENU screen.
VITC UB MODE	∗ ●	ENG	For setting the registration of the VITC UB MODE item on the USER MENU screen.

Warning system

When a problem is detected immediately after the power is turned on or during operation, the user is alerted to the trouble by the display window (LCD), WARNING lamp and the lamps inside the viewfinder and also by warning tones heard from the speaker or earphone.

■ SLACK

LCD display	● The SLACK display flashes. ● An error code is displayed where the time code is normally displayed.
WARNING lamp	The lamp flashes four times a second.
Tally lamp	The lamp flashes four times a second.
Warning alarm	The alarm sounds continuously.
Viewfinder	The SLACK display flashes.
What the warning indicates	The warning points to a problem in the tape take-up.
VTR unit's operation	The VTR unit stops. When a solenoid problem has been detected, the power is turned off. (The LCD warning display continues.)
Remedial action	Check the error code (see page 107) in the display window, and consult your nearest service center.

■ RF

LCD display	The RF display flashes (during recording).
WARNING lamp	The lamp flashes four times a second (during recording).
Tally lamp	The lamp flashes four times a second (during recording).
Warning alarm	The alarm sounds four times a second (during recording).
Viewfinder	The RF display comes on (during recording).
What the warning indicates	The video heads are clogged. The warning points to a problem in the recording system.
VTR unit's operation	Head clogging is detected, and the alarm tone is sounded. The cleaning roller is activated and the heads are cleaned (for at least 10 seconds). Recording continues but the signals may not be recorded properly. The warning display is held until the rec-pause mode is established. It goes off as soon as the unit is transferred from the rec-pause mode.
Remedial action	Clean the heads. If the signals cannot be recorded properly after cleaning, turn off the power, and consult your nearest service center.

■ REC WARNING

LCD display	"00:00:00:11" appears where the time code is normally displayed (for at least 5 seconds during recording).
WARNING lamp	The lamp flashes four times a second (for at least 3 seconds during recording).
Tally lamp	The lamp flashes four times a second (for at least 3 seconds during recording).
Warning alarm	The alarm sounds four times a second (for at least 3 seconds during recording).
Viewfinder	The REC WARNING display flashes (for at least 3 seconds during recording).
What the warning indicates	The warning points to a problem in the recording control signal.
VTR unit's operation	Recording continues but the signals may not be recorded properly while the warning is displayed.
Remedial action	The warning points to a problem with the control signal inside the unit. Consult your nearest service center.

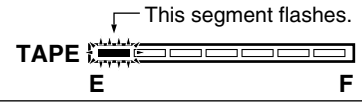
■ SERVO

LCD display	The SERVO display lights (during recording and playback).
WARNING lamp	The lamp flashes four times a second (during recording and playback).
Tally lamp	The lamp flashes four times a second (during recording and playback).
Warning alarm	The alarm sounds four times a second (during recording and playback).
Viewfinder	The SERVO display lights (during recording and playback).
What the warning indicates	The servo operation is disturbed.
VTR unit's operation	Operation continues but the unit may not operate properly.
Remedial action	Turn off the power, and consult your nearest service center. When tape travel starts, the warning display may flash for a moment and go off: this is normal and not indicative of a malfunction.

■ HUMID

LCD display	The HUMID display lights. The display will flash for 80 minutes after the condensation detection is released.
WARNING lamp	● The lamp lights when condensation has been detected. ● The lamp will flash once a second after condensation detection is released.
Tally lamp	The lamp flashes four times a second.
Warning alarm	● During recording, the alarm sounds four times a second. ● At all other times, the alarm sounds continuously.
Viewfinder	The HUMID display lights.
What the warning indicates	Condensation has formed.
VTR unit's operation	The VTR unit's operation differs depending on the setting selected for HUMID OPE on the setting menu. ● When the ON setting has been selected, the VTR unit continues to operate. ● When the OFF setting has been selected, the VTR unit continues with the recording, but this operation will stop if the tape sticks. For 80 minutes after condensation detection is released, the drum will rotate however no other operation is possible.
Remedial action	Stop the tape travel, and turn off the power. If the HUMID display fails to go off even when the power is turned off and back on, wait until it goes off.

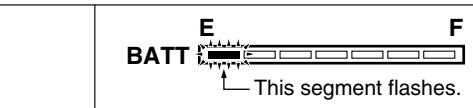
■ TAPE NEAR END

LCD display	
WARNING lamp	The lamp flashes once a second (during recording).
Tally lamp	The lamp flashes once a second (during recording).
Warning alarm	The alarm sounds once a second (during recording). This can be switched on the setting menu.
Viewfinder	● The remaining tape display flashes once a second (in the E-E mode). ● The SAVE lamp flashes in tandem with the warning alarm (when SAVE&TAPE has been selected as the setting for the SAVE LED item on the VTR VF INDICATOR screen of VTR MENU). ● "📼" flashes once a second (three seconds during recording).
What the warning indicates	The tape is approaching its end.
VTR unit's operation	The VTR unit continues to operate.
Remedial action	Replace the cassette tape if necessary.

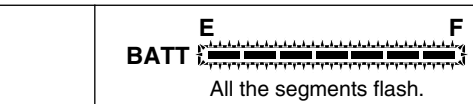
■ TAPE END

LCD display	
WARNING lamp	The lamp lights (during stop and in the standby OFF mode).
Tally lamp	The lamp flashes 4 times a second (during stop and in the standby OFF mode).
Warning alarm	The alarm sounds continuously (during stop and in the standby OFF mode).
Viewfinder	● The SAVE display flashes four times a second (during stop and in the standby OFF mode). ● "📼" lights (during stop and in the standby OFF mode).
What the warning indicates	The tape has come to its end.
VTR unit's operation	If recording, playback or fast forwarding is in progress, the operation is stopped.
Remedial action	Rewind the tape. Alternatively, replace the cassette tape.

■ BATTERY NEAR END

LCD display	
WARNING lamp	The lamp flashes once a second.
Tally lamp	The lamp flashes once a second.
Warning alarm	The alarm sounds four times a second.
Viewfinder	The BATT display flashes once a second.
What the warning indicates	The battery is near the end of its charge.
VTR unit's operation	The VTR unit continues to operate.
Remedial action	Replace the battery if necessary.

■ BATTERY END

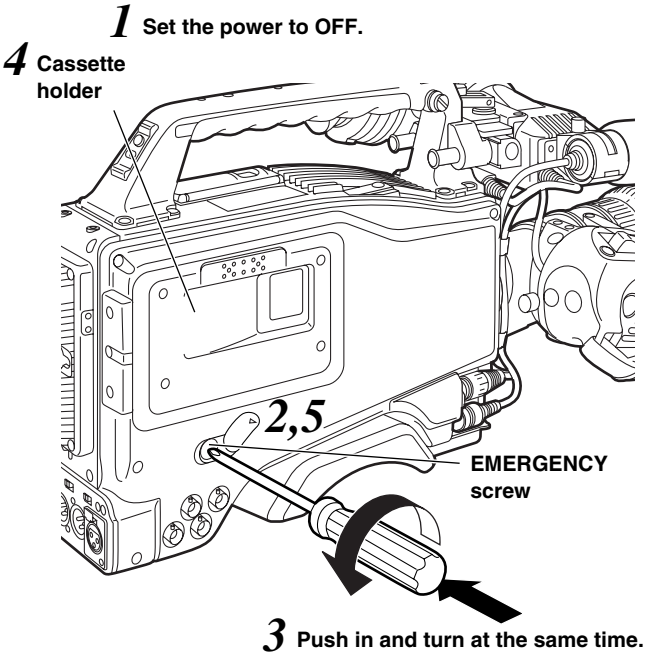
LCD display	
WARNING lamp	The lamp lights.
Tally lamp	The lamp flashes once a second.
Warning alarm	The alarm sounds continuously.
Viewfinder	The BATT display lights.
What the warning indicates	The battery is at the end of its charge.
VTR unit's operation	All operation is stopped and the tape is unloaded. Only cassette eject operation is possible.
Remedial action	Replace the battery.

Emergency eject

If the cassette cannot be ejected by pressing the EJECT button, use a screwdriver or similar tool to press and turn the EMERGENCY screw. This enables the cassette to be removed.

1 Set the power to OFF.

2 Remove the rubber cap where shown in the figure. Insert a Phillips head screwdriver into the cross-shaped part of the EMERGENCY screw (red).



- This screw needs to be rotated through about 20 turns after the first turn until the unloading can be started.
- This screw needs to be rotated through about 90 turns after the first turn until the tape is ejected.

3 While pushing in with the screwdriver, turn the EMERGENCY screw counterclockwise until the tape is ejected.
- This screw needs to be rotated through about 20 turns after the first turn until the unloading can be started.
- This screw needs to be rotated through about 90 turns after the first turn until the tape is ejected.

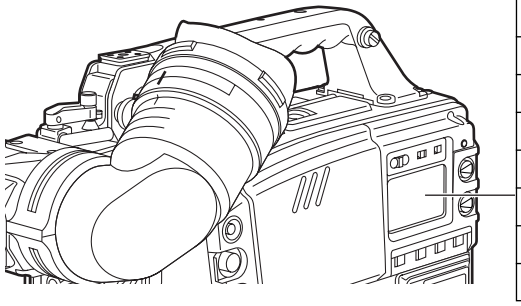
4 Remove the cassette.

5 Return the rubber cap to its original position.

<Notes>
- Do not turn the EMERGENCY screw except in an emergency.
- Do not turn the screw clockwise. Stop turning the screw as soon as the tape is ejected. Otherwise, the mechanism may be damaged.
- After the tape is ejected, the cassette holder will not lock into place even when an attempt is made to close it. Be sure to turn the power off and turn it back on to reset the mechanism's operation, and then close the cassette holder.
- A clicking sound will be heard when the EMERGENCY screw is turned: this sound is made by the reel drive operation and is therefore not indicative of a malfunction.

Error codes

One of the following error codes appears in the display window when an error has occurred in the unit for some reason.



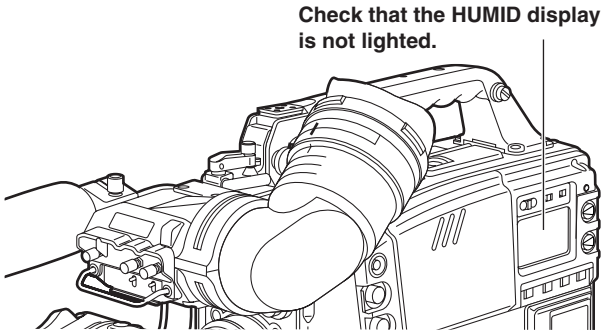
Code No.	Description of error
07	Pinch solenoid problem
08	Cleaning solenoid problem
0B	Supply reel problem
0C	Take-up reel problem
0D	Capstan problem
0E	Cylinder problem
0F	Loading problem
3F	Servo problem

Condensation

The water vapor in the air may form as tiny droplets on the head drum when the unit is moved from a cold location to a warm location or used in a very humid place. This phenomenon is known as condensation, and running the tape under these conditions is liable to cause the tape to stick to the drum.
Note the following points:

- Remove the tape when the unit's operation is to be started in conditions where condensation may form.
- Before loading the tape, set the power switch to ON, and check that the HUMID display is not lighted in the display window.

<Note>
For safety reasons, the HUMID display will flash and the drum will rotate for 80 minutes after condensation detection is released.
During this time, the operation buttons cannot be operated.



Head cleaning

Use the AJ-CL12LP cleaning cassette if the heads need to be cleaned. Take care to read the instructions accompanying the cleaning tape since the video heads may be damaged if the tape is not used in the correct way.

Cleaning inside the viewfinder

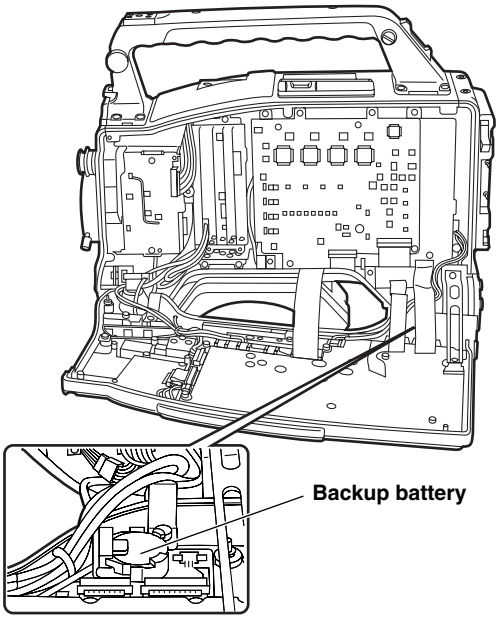
- Do not use thinners or any other solvent to remove dirt.
- Use a lens cleaner available on the market to wipe the lens.
- NEVER wipe the mirror.
  If dirt or dust has found its way onto the mirror, remove it using an air blower available on the market.

Phenomena inherent to CCD cameras

Smear
This phenomenon may occur when very bright subjects are shot.
The faster the electronic shutter speed, the more likely that it will occur.

Replacing the backup battery

The backup battery is already installed when the unit is shipped.
When it has discharged, the "BACK UP BATT EMPTY" display appears for 3 seconds on the viewfinder screen when the POWER switch is set to ON.
Moreover, the time code value of the TCG will be set to "00:00:00:00" and the backup of the time code value will no longer be possible: this means that the backup battery should be replaced.
Consult with your nearest service center, and replace the spent battery with a new battery (CR2032 or BR2032).



Preparation for inspection

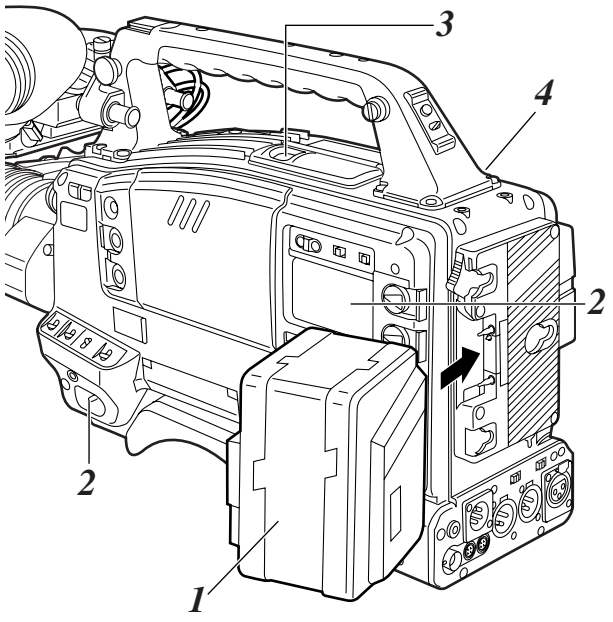
Perform the following inspections prior to shooting to check that the systems are operating properly.
It is recommended that the images be checked using a color monitor.

1 Insert a fully charged battery.

2 Set the POWER switch to ON, and check that the HUMID display has not come on and that at least 5 segments of the BATTERY display are lighted.
- If the HUMID display has come on, wait until it goes off.
- If fewer than 5 segments of the BATTERY display have lighted, replace the battery with one having an adequate charge.

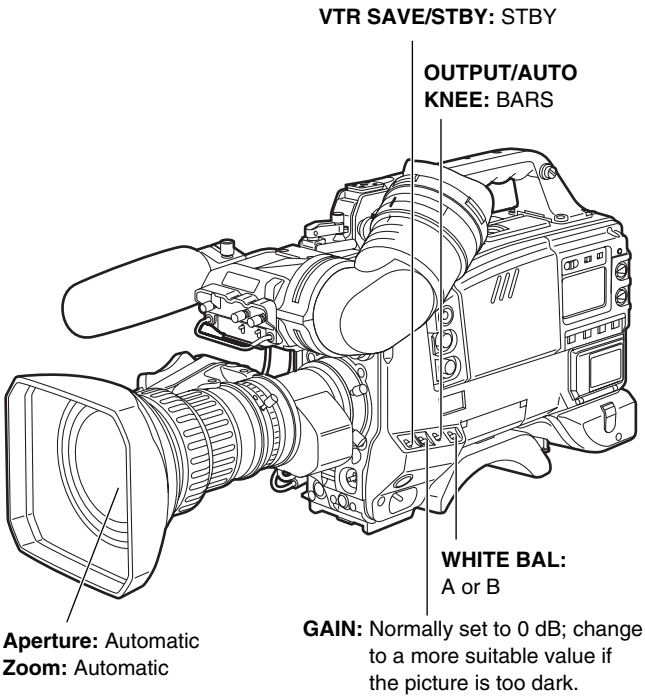
3 After checking that there are no cables near the cassette holder or top panel, press the EJECT button to open the cassette holder.

4 After checking the following points, load the cassette tape and close the cassette holder.
- The cassette tape must not be set to the accidental erasure prevention mode.
- There must be no tape slack.



Inspecting the camera unit

Set the camera unit's switches as shown in the figure below.



Inspecting the viewfinder

1 Adjust the position of the viewfinder.

2 Check that the color bar signals are displayed on the viewfinder screen, and adjust the BRIGHT, CONTRAST and PEAKING controls in such a way that the color bar signals appear clearly on the viewfinder.

3 Check that the MENU screen is shown on the viewfinder screen and that the item settings can be changed by operating the MENU button or JOG dial button.
(Refer to pages 70 to 72 for the menu operations.)

4 Set the OUTPUT/AUTO KNEE switch to CAM, and select the settings for the CC and ND FILTER controls.
Check that the figures for the FILTER displays on the viewfinder screen change to reflect the changes in the control positions.

5 Take the following steps, and check that the ⓘ lamp lights when the items set to ON on the !LED screen of CAM MENU have been operated.
1. Use the GAIN switch to set the gain to any value except 0 dB.
2. Set the SHUTTER switch to ON.
3. Set the WHITE BAL switch to PRST.
4. Engage the lens extender.
5. Set the FILTER controls to any setting except B.

6 Repeatedly press the SHUTTER switch from ON to SEL, and check that the shutter setting changes on the viewfinder screen.

7 Point the lens at any object, and turn the focus ring to bring the object into focus.
Check that an image of the object appears on the viewfinder.

8 Set both the AUDIO IN CH1 and CH2 switches to FRONT, and set LEVEL METER on the VTR VF INDICATOR screen of VTR MENU to CH1.
Check when sound is input from the microphone connected to the MIC IN jack on the lens that the audio level is displayed on the viewfinder screen.
Check when LEVEL METER on the VTR VF INDICATOR screen of VTR MENU is set to OFF that the audio level display is cleared from the viewfinder screen.

9 Check when the ZEBRA switch is set to ON that the zebra pattern appears on the viewfinder screen, and check when it is set to OFF that it is cleared from the screen.

<Note>
Depending on the setting statuses, the items and functions in steps *3* to *6* may not be displayed or they may not operate.
In a case like this, switch the unit to the engineer mode, set DISPLAY MODE on the menu's VF DISPLAY screen to "3," and set the necessary items on the SHUTTER SPEED, !LED and CAM USER MENU SELECT 1, 2 and 3 screens.

Inspecting the aperture and zoom functions

1 Set the zoom to the motorized zoom mode, and check its operations in this mode.
Check that the image changes when the zoom is set to the telephoto and wide-angle positions.

2 Set the zoom to the manual zoom mode, and check its operations in this mode.
Turn the manual zoom lever, and check that the image changes when the zoom is set to the telephoto and wide-angle positions.

3 Set the aperture to the auto adjustment mode, point the lens at some objects with different brightness levels, and check that the auto aperture adjustment works.

4 Set the aperture to the manual adjustment mode, turn the aperture ring, and check that the manual aperture is adjusted.

5 While holding down the auto instantaneous aperture adjustment button, point the lens at some objects with different brightness levels, and check that the auto instantaneous aperture adjustment function works.

6 Return the aperture to the auto adjustment mode, switch the GAIN switch setting to L, M and H, and check that:
- The aperture is adjusted for objects of the same brightness level in tandem with the switching of the gain setting.
- The gain displayed on the viewfinder screen is switched in tandem with the switching of the gain setting.

7 When a lens with an extender has been installed, set the extender to the operating position, and check that it works properly.

Inspecting the VTR unit

Perform all the steps outlined in section “1. Tape travel inspection” through section “4. Earphone and speaker inspection” one after the other.

1. Tape travel inspection

1 Set the VTR SAVE/STBY switch to SAVE, and check that the VTR SAVE lamp inside the viewfinder lights.

2 Set the VTR SAVE/STBY switch to STBY, and check that the VTR SAVE lamp goes off.

3 Set the TCG switch to R-RUN.

4 Set the DISPLAY switch to CLT.

5 Press the unit’s VTR START button, and check that:
- The tape reels rotate.
- The figure shown on the counter display changes.
- The REC lamp inside the viewfinder lights.
- The RF and SERVO displays do not appear in the display window.

6 Press the unit’s VTR START button again. Check that the tape stops and the REC lamp inside the viewfinder goes off.

7 Use the lens VTR button to check the same operations as in steps *5* and *6*.

8 Press the RESET button, and check that “00:00:00:00” appears on the counter display.

9 Set the LIGHT switch to ON, and check that the display window illuminates.

10 Press the REW button, and after the tape has been rewound for a few seconds, press the PLAY/PAUSE button.
Check that the tape is recorded, played back and rewound properly.

11 Press the FF button, and check that the tape is fast forwarded properly.

Inspecting the VTR unit

2. Automatic audio level adjustment function inspection

1 Set the AUDIO SELECT CH1 and CH2 switch to AUTO.

2 Set the AUDIO IN CH1 and CH2 switches to FRONT.

3 Point the microphone connected to the MIC IN jack at a suitable sound source, and check that the changes in the level displays for both CH1 and CH2 reflect the changes in the strength of the sound.

3. Manual audio level adjustment function inspection

1 Set the AUDIO IN CH1 and CH2 switches to FRONT.

2 Set the AUDIO SELECT CH1 and CH2 switch to MAN.

3 Turn the AUDIO LEVEL CH1 and CH2 controls.
Check that when they are turned clockwise, the level displays increase.

4. Earphone and speaker inspection

1 Set the VTR SAVE/STBY switch to STBY.

2 Turn the MONITOR control, and check that the speaker volume changes.

3 Connect the earphones to the PHONES jack.
Check that the sound from the speaker is muted, and that the microphone's sound is heard in the earphones.

4 Turn the MONITOR control, and check that the earphone volume changes.

5. Inspection using external microphones

1 Connect external microphones to the AUDIO IN CH1 and CH2 jacks.

2 Set the AUDIO IN CH1 and CH2 switches to REAR.

3 Set the LINE/MIC/+48V selector switch on the back panel to MIC or +48V in accordance with the external mic's power supply type.
MIC : Internal power supply mic.
+48V : External power supply mic.

4 Point the microphones at the sound source, and check that the changes in the audio levels displayed on the audio level meter of the display window and in the viewfinder reflect the changes in the strength of the sound.
This inspection can also be performed for each channel by connecting one of the microphones to each channel in turn.

6. Inspections relating to the time code and user's bit

1 Set the user's bit as required.
For details on the setting procedure, refer to "Setting the user's bit" (page 55).

2 Set the time code.
For details on the setting procedure, refer to "Setting the time code" (page 56).

3 Set the TCG switch to R-RUN.

4 Press the VTR START button.
Check that the figure on the counter display changes as the tape travels.

5 Press the VTR START button again.
Check that the tape stops and the figure shown on the counter display stops changing.

6 Set the TCG switch to F-RUN.
Check that the figure on the counter display changes irrespective of the tape travel.

7 Set the DISPLAY switch to UB.
Check that the user's bit which has been set is now displayed.

[GENERAL]

Supply voltage:
DC 12 V (DC 11 V—DC 17 V)
Power consumption:
38 W (maximum)
32 W (during SAVE REC mode)

Ambient operating temperature:
+32°F to +104°F (0°C to +40°C)
Storage temperature:
–4°F to +140°F (–20°C to +60°C)
Ambient operating humidity:
Less than 85% (relative humidity)
Continuous operating time:
Approx. 70 minutes
(when using the 14/40W Anton/Bauer Trim pack)
Weight:
9.46 lb (4.3 kg) (main unit only)
Approx. 15.4 lb (7 kg)
(including main unit, viewfinder, lens, battery pack, tape and microphone)
Dimensions (W × H × D) (excluding grip):
5 1/4″ × 8 1/16″ × 12 3/8″ (132 × 204 × 313 mm)

[CAMERA UNIT]

Pickup device:
2/3″ on-chip IT-type CCD (1 million pixels)
System:
RGB 3-CCD system
Total number of pixels:
1370 (H) × 744 (V)
Number of effective pixels:
1280 (H) × 720 (V)
Optical system:
F/1.4 prism system
Built-in filters:
CC filter:
A: CROSS, B: 3200 K, C: 4300 K, D: 6300 K
ND filter:
1: CLEAR, 2: 1/4 ND, 3: 1/16 ND, 4: 1/64 ND
Quantizing:
10-bit non-linear
Sampling frequency:
74 MHz
Digital signal processing:
74 MHz
Horizontal drive frequency:
74 MHz
Programmable gain:
Choice of 3 positions (L/M/H) from –6 dB/–3 dB/0 dB/3 dB/6 dB/9 dB/12 dB/18 dB/24 dB/30 dB
Super gain:
18 dB/24 dB/30 dB/36 dB selectable
Shutter speed:
Preset:
1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 sec.
Synchro scan:
1/60.0 to 1/251.3 sec.
Lens mount:
2/3″ Bayonet type
Sensitivity:
F10 (2000 lux, 89.9% reflection)
Minimum subject brightness:
0.7 lux (with F/1.4, +36 dB)
Video S/N ratio:
54 dB (typ.)
Horizontal resolution:
More than 700 TV lines (center)
Registration:
Less than 0.03% (entire range) (excluding lens)

[VTR UNIT]

VTR Video System

Sampling frequency:
Y : 74 MHz
P_B/P_R : 37 MHz
Quantizing:
8 bits
Video compression system:
DCT + variable-length code
Video compression ratio:
1/6.7
Error correction:
Reed-Solomon product code
Video recording bit rate:
100 Mbps
Video band:
Y : 20 MHz
P_B/P_R : 10 MHz

VTR Audio System

(during playback on standard player)

Sampling frequency:
48 kHz (synchronized with video)
Quantizing:
16 bits
Frequency response:
20 Hz to 20 kHz ±1.0 dB (at reference level)
Dynamic range:
More than 85 dB (at 1 kHz, AWTD)
Distortion:
Less than 0.1% (at 1 kHz, reference level)
Wow and flutter:
Below measurable limits
Head room:
20 dB

VTR Tape Transport System

Tape used:
1/4″ DVCPRO L-size cassette tape
Tape speed:
135.28 mm/sec.
Recording/playback time:
46 minutes (using AJ-HP46LP)
32 minutes (using AJ-HP32LP)
FF/REW time:
Approx. 3 minutes (using AJ-HP46LP)

[Connector Section]

Input

AUDIO IN CH1/CH2 (XLR×2, 3-pin female)
LINE/MIC/MIC+48V switching type
LINE : +4 dBu
MIC : –60 dBu
MIC+48V: Phantom +48V, –60 dBu
MIC IN (XLR, 3-pin female)
–40 dBu (switchable to –50 dBu using internal switch)
Phantom +48 V supported
GENLOCK IN (BNC):
Compliant with SMPTE296M (analog sync) standard
TC IN (BNC):
0.5 V—8 V [p-p], high impedance

Output

HD SDI OUT (BNC×2):
0.8 V [p-p], with switch function
AUDIO OUT (XLR, 5-pin male):
+4 dBm
TC OUT (BNC):
2.0 V [p-p], low impedance
PHONES:
Stereo mini jack

Other

DC IN (XLR, 4-pin male):
DC 12 V (DC 11 V—17 V)
DC OUT (4-pin):
DC 12 V (DC 11 V—17 V), 0.1 A (max.)
LENS (12-pin)
ECU (6-pin)
EVF (20-pin)

[VIEWFINDER]

(Optional accessory: AJ-HVF27P)

CRT:
2″ high-resolution monochrome tube
Video system:
720P/59.94 Hz
External adjustment controls:
Controls:
BRIGHT, CONTRAST, PEAKING
Switches:
TALLY HIGH/OFF/LOW, ZEBRA ON/OFF

[ACCESSORIES]

- Shoulder strap (×1)
- Battery terminals (including screws) for supporting Sony battery packs
- Battery holder (already installed on main unit) for Anton/Bauer battery packs

[RELATED COMPONENTS & PARTS]

Relating to power supply

Battery pack:
AU-BP402, AJ-BP490
Battery charger:
AG-B425 (for charging AU-BP402 battery pack)
AJ-B450 (for charging AJ-BP490 battery pack)
Battery case:
AU-M402H
AC adapter:
AJ-B75

Viewfinder

2.0″ viewfinder:
AJ-HVF27P

Relating to external VTRs

Extension control unit:
AJ-EC3

Audio components

Microphone kit:
AJ-MC700P
Mic holder:
AJ-MH700P
Wireless mic receiver:
WX-RJ700
Camera attachment:
WX-ZJ770

Maintenance products

Cleaning tape:
AJ-CL12LP
Soft carrying case:
AJ-SC900
Rain cover:
SHAN-RC700

Panasonic

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WESTERN ZONE:
3330 Cahuenga Blvd W., Los Angeles, CA 90068 (323) 436-3500

Government Marketing Department:
52 West Gude Drive, Rockville, MD 20850 (301) 738-3840

Broadcast PARTS INFORMATION & ORDERING:
9:00 a.m. – 5:00 p.m. (EST) (800) 334-4881/24 Hr. Fax (800) 334-4880
Emergency after hour parts orders (800) 334-4881

TECHNICAL SUPPORT:
Emergency 24 Hour Service (800) 222-0741

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5770 Ambler Drive, Mississauga, Ontario L4W 2T3 (905) 624-5010

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SECTION 2

SERVICE INFORMATION

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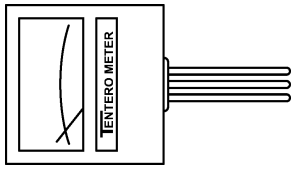
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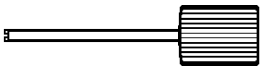
1. Servicing Fixtures & Tools

No.	Part No.	Fixture & Tool Name	Remarks
1	VFK1145A	Back Tension Meter (T2-M30-P)	
2	VFK1149A	Post Driver (2.5mm)	
3	VFK71A	Dial Torque Gauge (1.5cN-m)	150g
4	VFK1191A	Dial Torque Gauge (0.45cN-m)	45g
5	VFK1152	Dial Torque Gauge Adapter	
6	VFK0357	Eccentric Driver (1.5mm)	
7	VFK1154	Post Height Fixture	
8	VFK1586	Mech. Neutral Plate (L)	For Post Height
9	VFK1155	REV Position Tool (Silver)	
10	VFK1156	PLAY Position Tool (Black)	
11	VFK1208	Neutral Position Tool (Black with Hole)	
12	VFK1150	Nut Driver (5.5mm)	
13	VFK1151	Nut Driver (2.5mm)	
14	VFK1188A	Dial Tension Gauge (30mN)	30g
15	VFK0948	Check Light	
16	VFK0749	Froiral Grease	For Plastic
17	MOR265	Morlytone Grease	For Metallic
18	VFK1146	Phillips Driver (Fine) (00-75)	
19	VFK1147	Phillips Driver (Fine) (0-100)	
20	VFK1148	Hex. Driver (1.5mm)	
21	VFK1178	Hex. Driver (0.89mm)	
22	VFK1179	Hex. Driver (0.71mm)	
23	VFK1190	Hex. Wrench	
24	VFK1209A	Torque Driver (4-30cN-m)	0.4-3kg
25	VFK1375	Hex. Bit (1.5mm)	
26	VFK1300	AD Board (DAQ-12 Quatech)	
27	VFM3580KL	Alignment Tape (No.1)	L-Cassette
28	VFM3581KL	Alignment Tape (No.2)	L-Cassette
29	VFM3582KL	Alignment Tape (No.3)	L-Cassette
30	AJ-CL12P	Cleaning Tape	SALES Route
31	VFK1481B	LISTA Software	
32	VFK1186	LISTA Cable	
33	VFK0369	Tweezers	
34	VFK0371	Radio Prier	
35	VFK0372	Cutter Prier	
36	VFK0337	Phillips Driver	
37	VFK0338	Phillips Driver	
38	VFK1369	Tape Sensor Adjustment Cassette	
39	VFK0906	Lubrication Oil	
40	VFK1642	Gray Scale Chart (Reflection type)	16:9
41	VFK1643	Resolution Chart (Reflection type)	16:9, For HD
42	VFK1644	Immega Cycle Chart (Transparency type)	16:9, For HD

1 **VFK1145A (T2-M30-P)**
Back Tension Meter

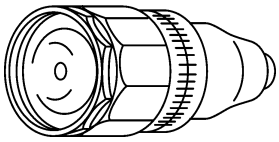


2 **VFK1149A (2.5mm)**
Post Driver

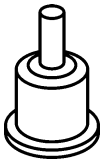


3 **VFK71A (1.5cN-m) (150g)**

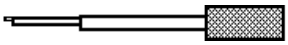
4 **VFK1191A (0.45cN-m) (45g)**
Dial Torque Gauge



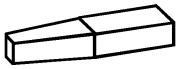
5 **VFK1152**
Dial Torque Gauge Adapter



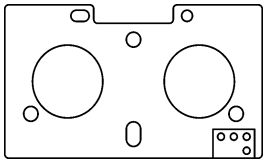
6 **VFK0357**
Eccentric Driver (1.5mm)



7 **VFK1154**
Post Height Fixture

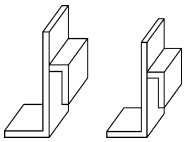


8 **VFK1586**
Mech. Neutral Plate (L)

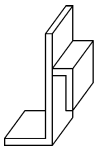


9 **VFK1155**
REV Position Tool (Silver)

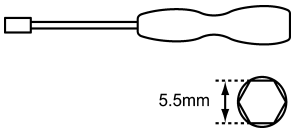
10 **VFK1156**
PLAY Position Tool (Black)



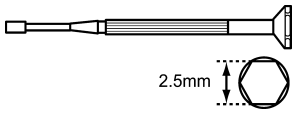
11 **VFK1208**
Neutral Position Tool (Black with Hole)



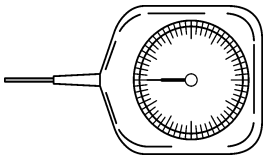
12 **VFK1150**
Nut Driver (5.5mm)



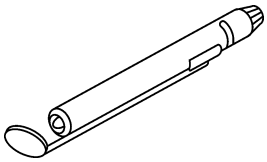
13 **VFK1151**
Nut Driver (2.5mm)



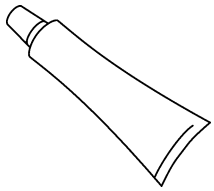
14 **VFK1188A** **30mN**
Dial Tension Gauge



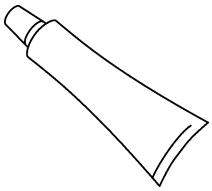
15 **VFK0948**
Check Light



16 **VFK0749**
Froiral Grease (for Plastic)

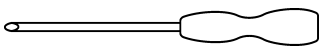


17 **MOR265**
Morlytone Grease (for Metallic)



18 **VFK1146**

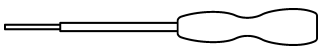
19 **VFK1147**
Phillips Driver (Fine)



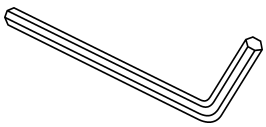
20 **VFK1148 (1.5mm)**

21 **VFK1178 (0.89mm)**

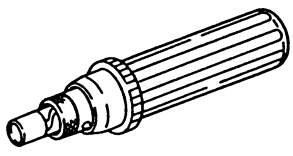
22 **VFK1179 (0.71mm)**
Hex. Driver



23 **VFK1190**
Hex. Wrench

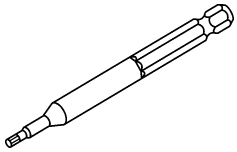


24 **VFK1209A 4-30cN-m (0.4-3kg)**
Torque Driver



25 VFK1375

Hex. Bit



26 VFK1300

AD Board
(DAQ-12 Quatech)

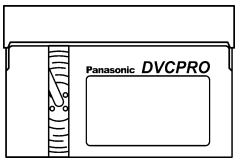


27 VFM3580KL

28 VFM3581KL

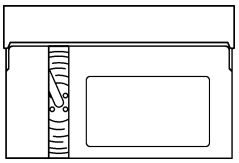
29 VFM3582KL

Alignment Tape



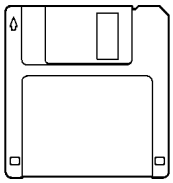
30 AJ-CL12P

Cleaning Tape



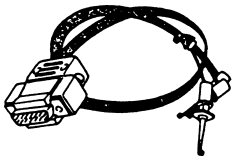
31 VFK1481B

LISTA Software



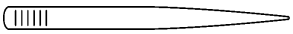
32 VFK1186

LISTA Cable



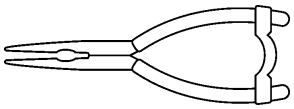
33 VFK0369

Tweezers



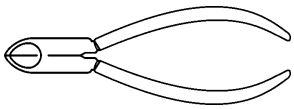
34 VFK0371

Radio Prier



35 VFK0372

Cutter Prier

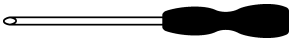


36 VFK0337

Phillips Driver

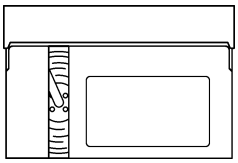
37 VFK0338

Phillips Driver



38 VFK1369

Tape Sensor
Adjustment Cassette



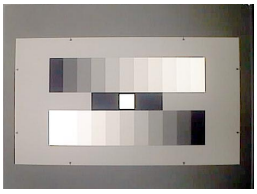
39 VFK0906

Lubrication Oil



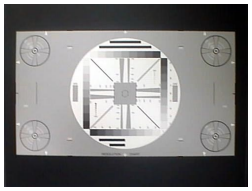
40 VFK1642

Gray Scale Chart
(16:9, Reflection Type)



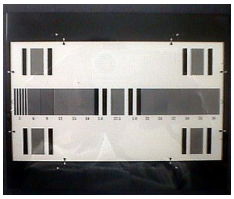
41 VFK1643

Resolution Chart
(16:9,Reflection type)



42 VFK1644

Immega Chart (For HD,
Transpalency Type)



2. Alignment Tape

2-1. DVCPRO Alignment Tape

2-1-1. VFM3580KL

Time (min.)	VIDEO		PCM		CUE	
	SIGNAL	PORPOSE	SIGNAL	PORPOSE	SIGNAL	PORPOSE
0:00	Color Bar SMPTE (75%)	Confirmation of the Composite Video Level	1KHz -20dB	Confirmation of the Audio Level	1KHz 0VU	Confirmation of the CUE Level
7:00	Color Bar (100%)	Confirmation of the Composite Video Level				
14:00	H Sweep	Frequency Characteristic			6KHz 0VU	A/C Head Azimuth Adjustment
18:00	Bowtie (500K)	Y/C Timing				
22:00	Pulse & Bar	Y/C Timing			300, 500, 1K 2K, 4K, 6KHz	Frequency Characteristic
26:00	Area Marker	Video Start Timing			-----	-----

2-1-2. VFM3581KL

Time (min.)	VIDEO		PCM		CUE	
	SIGNAL	PORPOSE	SIGNAL	PORPOSE	SIGNAL	PORPOSE
0:00	ITI Pattern	Linearity Adjustment	---	---	---	---

2-1-3. VFM3582KL

Time (min.)	VIDEO		PCM		CUE	
	SIGNAL	PORPOSE	SIGNAL	PORPOSE	SIGNAL	PORPOSE
0:00	Color Bar (75%) (with drop-out track)	X Value Adjustment	---	---	6KHz 10VU	X Value Adjustment

3. List of Recommended Measuring and Instruments

MODEL No. (Example)	NAME	REMARKS
	HD Monitor TV	with SDI INPUT
LEADER LV5152DA	Waveform Monitor	• with SDI INPUT
	Vector Scope	• R,G,B/Y,Pb,Pr Display Switching
	Oscilloscope	
	Digital Volt Meter (D.V.M.)	
	Frequency Counter	
	Audio Analyzer	
	Spectrum Analyzer	
	Halogen Lump (X2)	500W 3200K
	Lux Meter	
	Color Pyrometer	
	Special Light Box	Spherical Type

4. Maintenance Schedule

	Part Name	Hours of Use (unit hours)						
		1,000H	2,000H	4,000H	6,000H	8,000H	10,000H	12,000H
-	Cleaning of the tape transport	"C": every 500 hours						
1	Cylinder Ass'y		R	R	R	R	R	IM
2	Pinch Arm Unit	R, Y, G	R, Y, G	R, Y, G	R, Y, G	R, Y, G	R, Y, G	IM
3	Cleaning Arm Unit	R, Y	R, Y	R, Y	R, Y	R, Y	R, Y	IM
4	S,T Reel Motor Unit			R		R		IM
5	Thrust Screw Unit			R		R,L		IM
6	S1 Loading Arm Unit					R		IM
7	T1 Boat Unit					R		IM
8	S5 Post Base Unit					R		IM
9	Tension Arm Unit					R		IM
10	S,T Cass. Brake Arm U.					R		IM
11	Mode Switch Unit					R		IM
12	A/C Head							IM
13	Loading Motor (1) Arm Unit.							IM
14	Pinch Solenoid							IM
15	S,T Brake Solenoid							IM
16	L Switch Base Unit							IM
17	Cleaner Solenoid							IM
18	Main Cam Gear							IM
19	Mechanism Unit							IM
20	Cassette Compartment Unit							IM

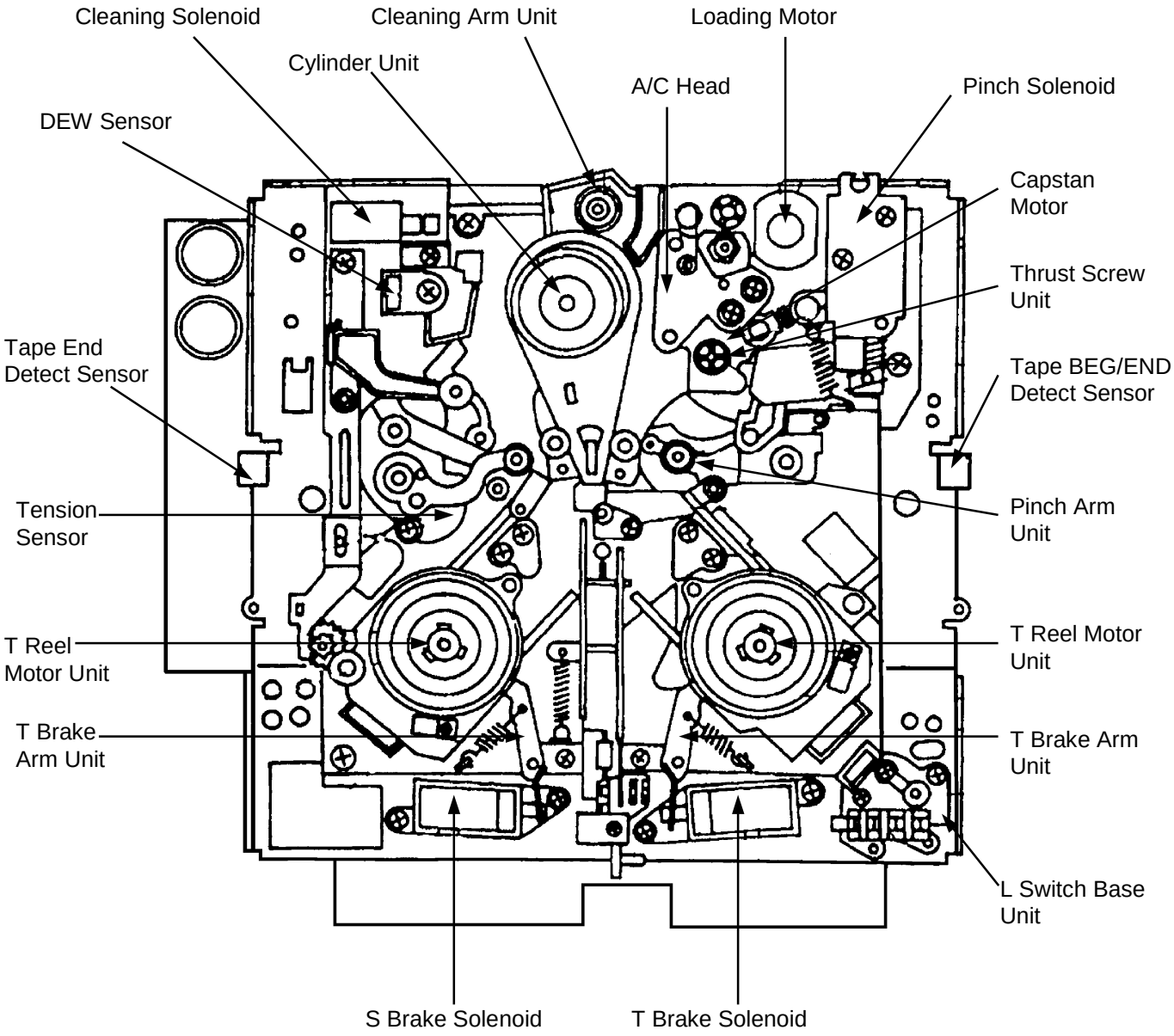
Replacement of the mechanism chassis unit is recommended for the 12,000 h maintenance.

"**C**" : Perform cleaning.
"**R**" : Assembly subject to exchange.
"**Y**" : The timing of replacement with Cleaning Arm Unit, either 1000 hours or 1 year as timing come earlier.
"**G**" : At the time of replacement, wipe off the old grease and apply new grease. (Molytone Grease)
"**L**" : Lubrication is necessary.
"**IM**" : Included in the mechanical chassis unit when the mechanical chassis unit is not replaced, replacement as a single part is required.

<Note:>

The Hours of use indicates the cylinder rotation time (DRUM RUN).
The maintenance execution time shown in the chart is recommendation for standard maintenance execution.
This is not the life of the various parts.
The life is influenced by temperature, humidity, dust, etc.

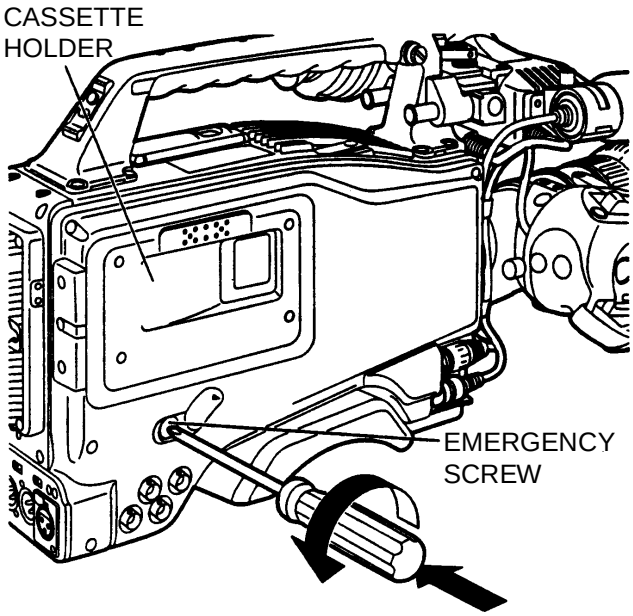
5. Layout of the Maintenance Parts & Sensors



6. Emergency Eject

If the cassette cannot be ejected by pressing the EJECT button, use a screwdriver or similar tool to press and turn the EMERGENCY screw. This enables the cassette to be removed.

1. Turn the power OFF.
2. Remove the rubber cap where shown in the figure. Insert a Phillips head screwdriver into the cross-shaped part of the EMERGENCY screw (red).



Turn the emergency screw by pushing it

3. While pushing in with the screwdriver, turn the EMERGENCY screw counterclockwise until the tape is ejected.
   - This screw needs to be rotated through about 20 turns after the first turn until the unloading can be started.
   - This screw needs to be rotated through about 90 turns after the first turn until the tape is ejected.
4. Remove the cassette.
5. Return the rubber cap to its original position.

< Notes >

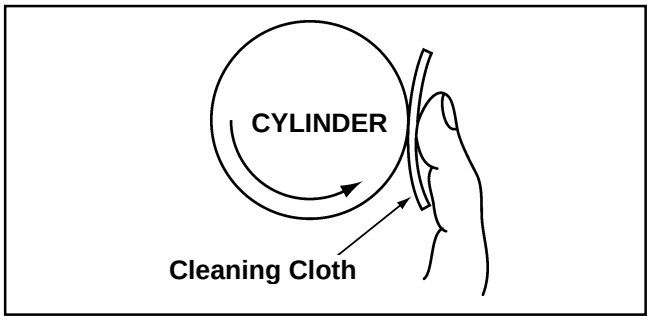
- Do not turn the EMERGENCY screw except in an emergency.
- Do not turn the screw clockwise. Stop turning the screw as soon as the tape is ejected. Otherwise, the mechanism may be damaged.
- After the tape is ejected, the cassette holder will not be locked even when it is closed. Be sure to turn the power off and turn it back on to reset the mechanism's operation, and then close the cassette holder.
- A clicking sound will be heard while the EMERGENCY screw is been turning: this sound is made by the reel drive operation. Therefore it isn't indication of a malfunction.

7. Cleaning Method

Note: Turn the power OFF during cleaning.
Make sure the power is OFF before cleaning. Use ethanol (more than 99% purity) as cleaning liquid.

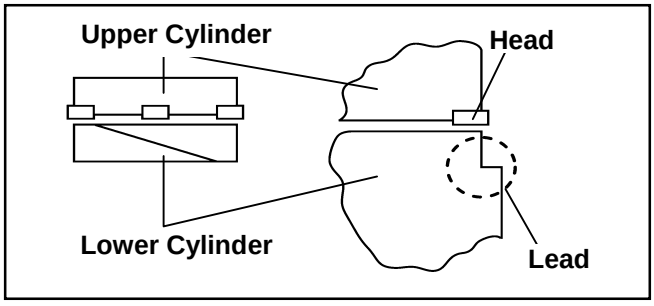
7-1. Cylinder Head Cleaning Method: (Daily)

Clean heads by applying even pressure and rotating cylinder a few times. Never wipe in up and down motion. Never touch a cylinder by bare hand. At first wipe with a cloth dipped in cleaning liquid. Then wipe with dry cloth.



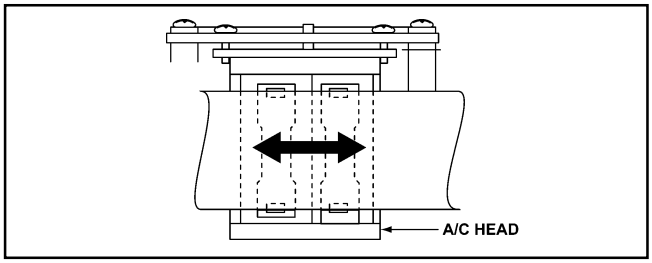
7-2. Cylinder Lead Cleaning Method: (Weekly)

Don't touch a head chip. Clean the drum lead with a pick.



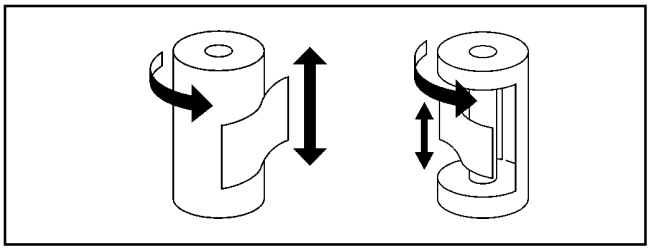
7-3. A/C Head Cleaning Method: (Weekly)

Wipe the A/C head with a cloth dipped in cleaning liquid. Wipe again with a dry cloth.



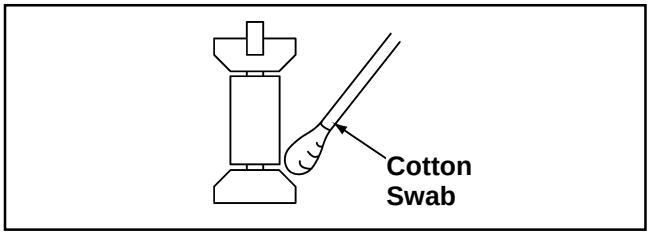
7-4. Pinch Roller and Capstan Shaft Cleaning Method: (Weekly)

Wipe the Pinch Roller and Capstan with a cloth dipped in cleaning liquid.



7-5. Post Cleaning Method: (Weekly)

Wind a cloth on a pick. Wipe each posts with that pick. Wipe again with a dry cloth. For metal posts wipe with a cloth dipped in cleaning liquid. Then wipe it again with dry cloth.

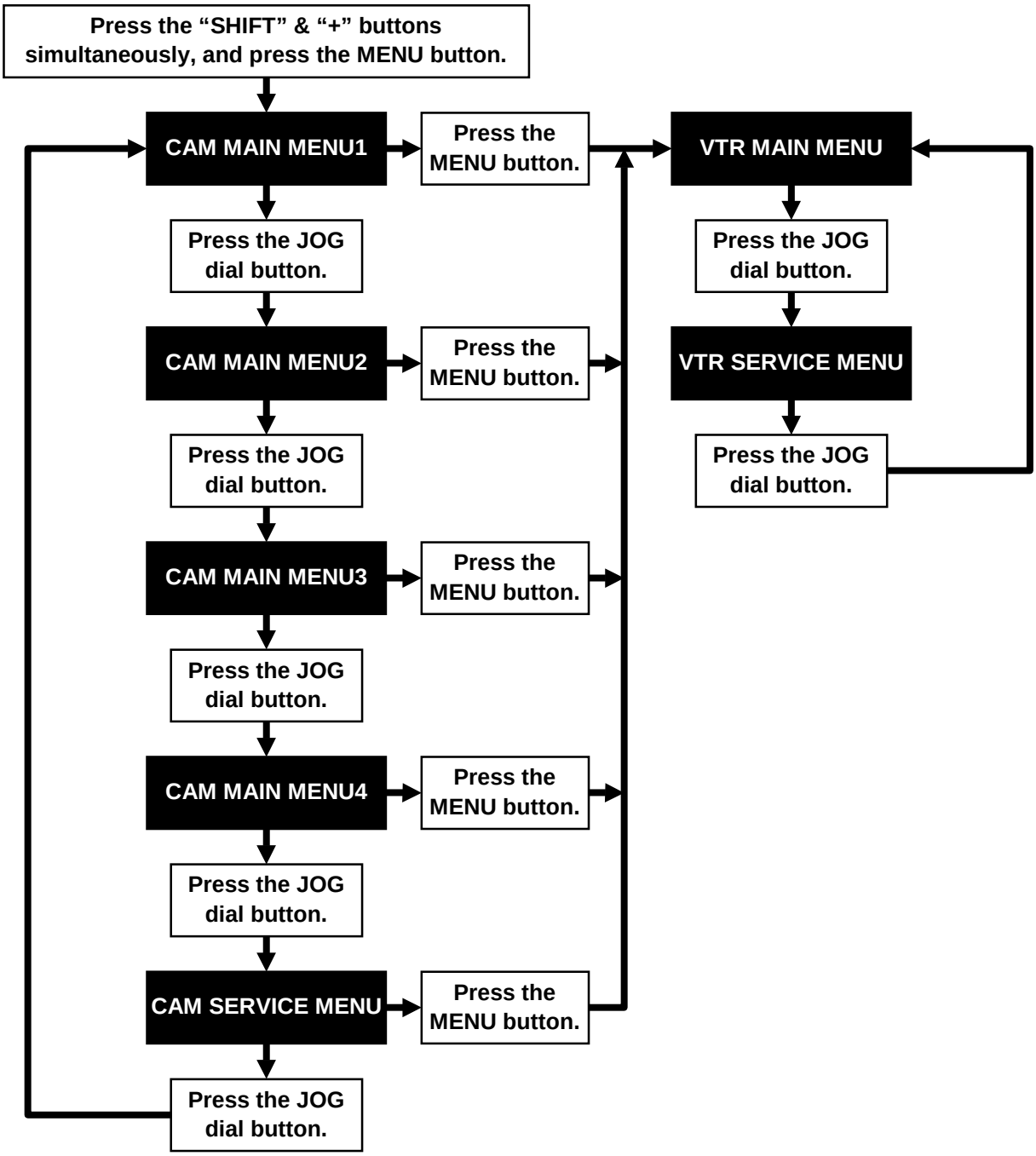


Notes :
Use the clean cloth for cleaning purpose. Do not use any dirty cloth.
The cleaning cloth can be ordered as spare parts.
The part number is indicated as below.
CLEANING CLOTH : VZZ0095

8. Basic Setting Menu Operations

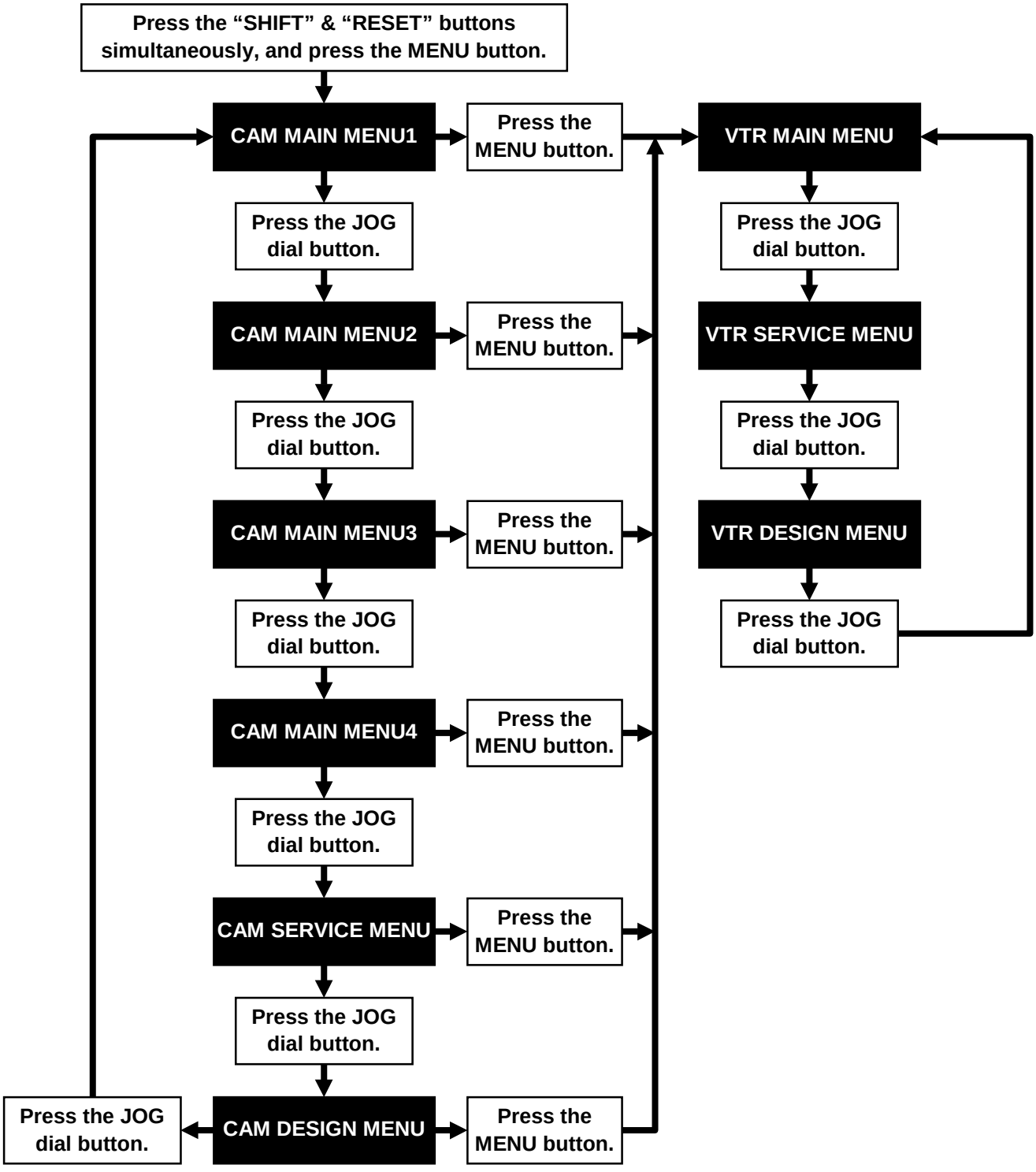
8-1. Service Menu Operation

1. Press the “SHIFT” and “+” buttons of the Time Code Operation Button simultaneously and press the MENU button, and CAMERA unit’s SERVICE MENU screen is displayed.
2. When the MENU button is pressed again, the VTR unit’s SERVICE MENU screen is displayed.



8-2. Design Menu Operation

1. Press the “SHIFT” and “RESET” buttons of the Time Code Operation Button simultaneously and press the MENU button, and switch to the CAMERA unit’s SERVICE MENU screen display mode. At first “CAM MAIN MENU1” screen is displayed as shown below, but by pressing the JOG Dial button following screen through the “CAM DESIGN MENU” is displayed .
2. The SERVICE MENU and DESIGN MENU Can be displayed by pressing the JOG Dial button.



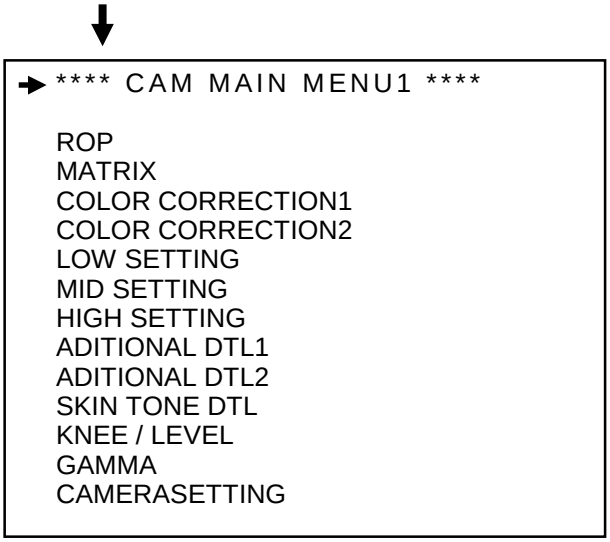
8-3. Displaying Sub-Menus and Setting Procedures

Setting procedures are same for both the USER MENU and ENGINEER MENU.

1. Turn the JOG Dial button while the USER MENU screen or MAIN MENU screen is displayed.
   The cursor moves to the SUB MENU item.

Example :

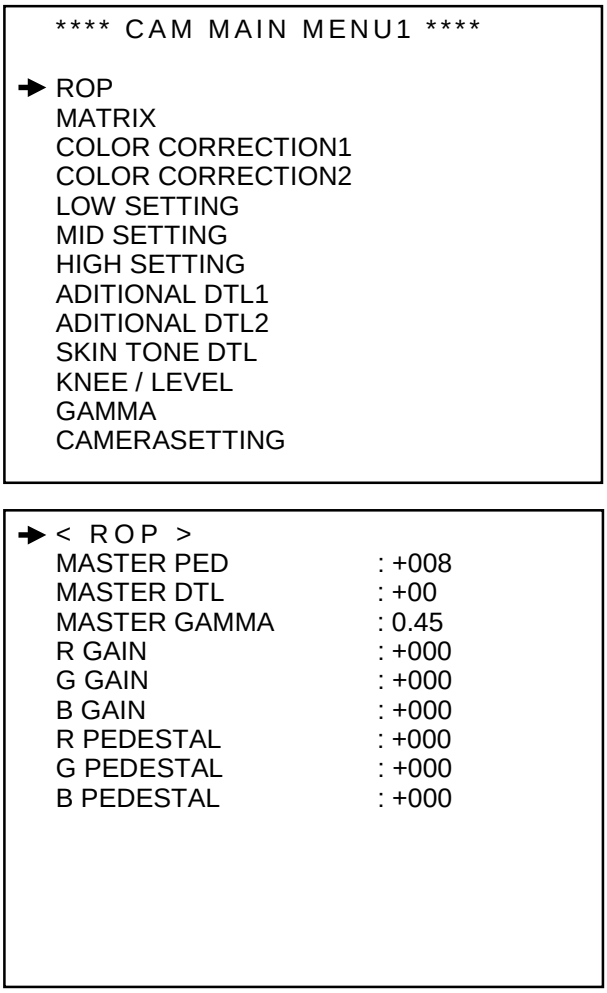
Turn the JOG Dial button.



2. Move the cursor to the desired SUB MENU item, and press the JOG Dial button.
   The SUB MENU is now displayed.
   (The cursor appears besidce the title part of the SUB MENU.)

Example :

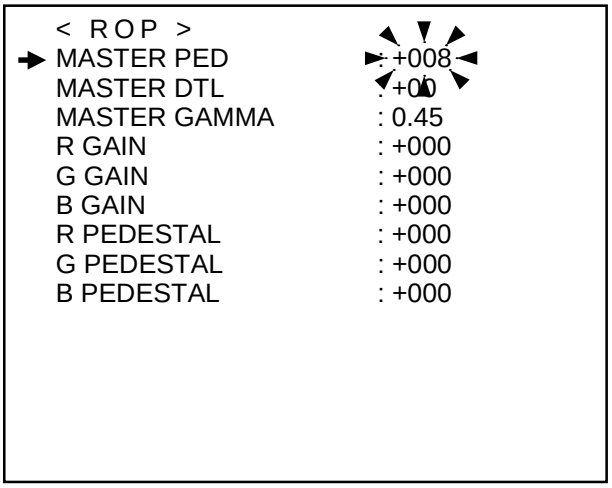
Press the JOG Dial button.



3. Turn the JOG Dial button to move the cursor to the desired item to be set, and press the JOG Dial button.
   The digit which value is to be set now flashes.

Example :

Press the JOG Dial button.

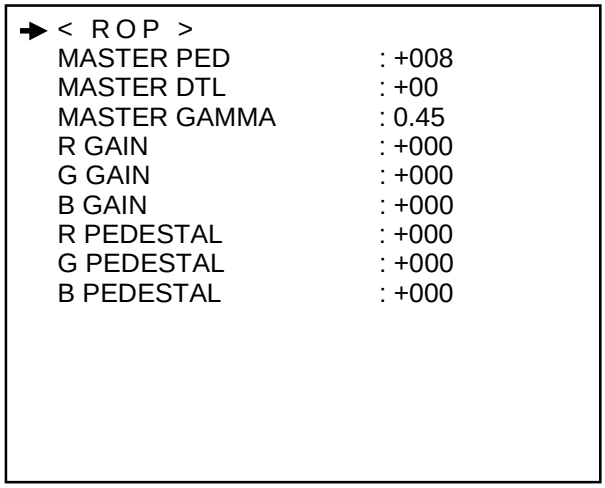


4. Turn the JOG Dial button to change the setting.
5. When the desired setting is shown, press the JOG Dial button.
   The setting is now entered.
6. When other items are to be set, turn the JOG Dial button to move the cursor, and charge and enter the settings by repeating steps 3 through 5.

7. To move to the another SUB MENU, turn the JOG Dial button to move the cursor to the title part of the SUB MENU, and press the JOG Dial button.
   The USER MENU screen or MAIN MENU screen is now displayed, so proceed with operation by following the same steps.

Example :

Press the JOG Dial button.

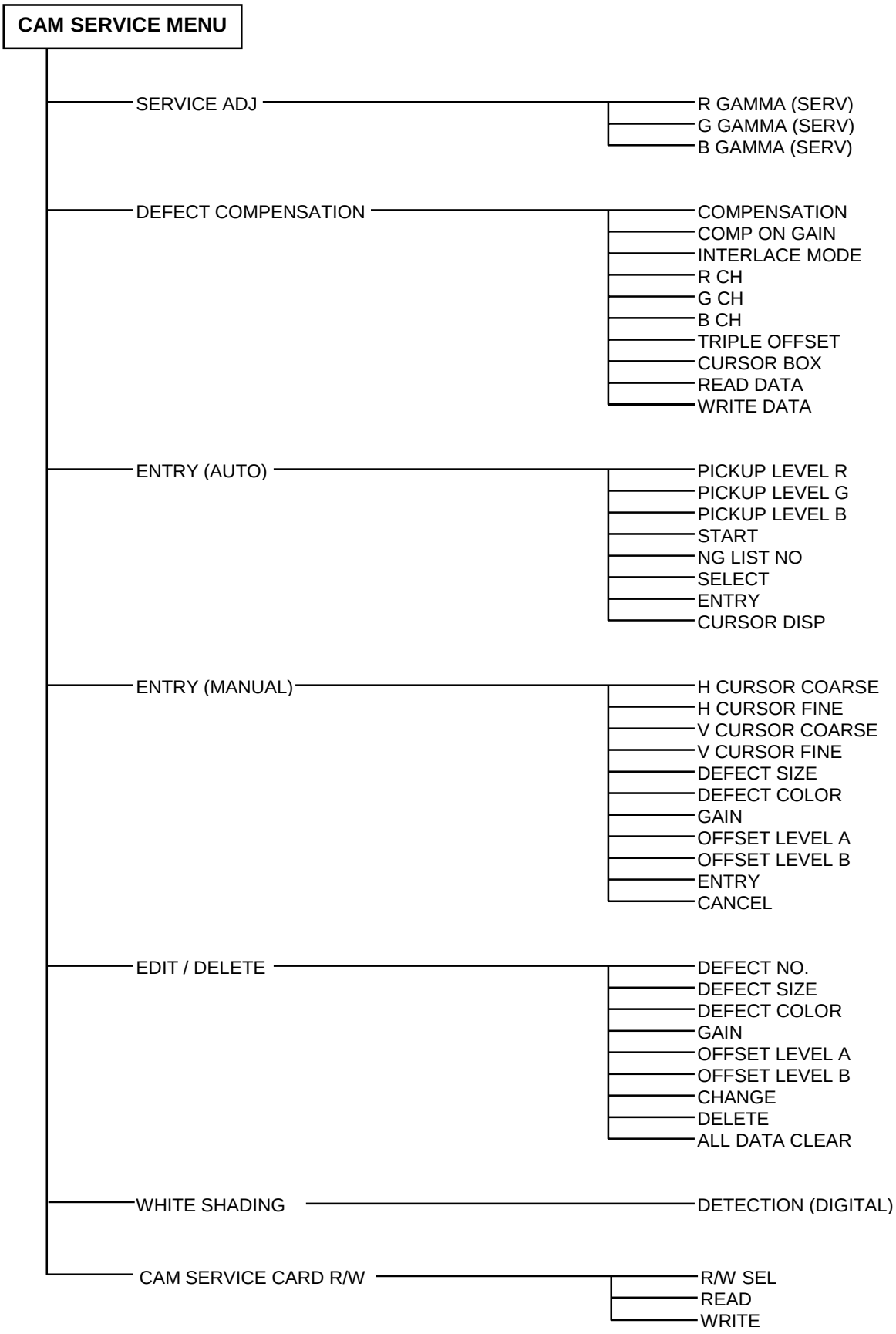


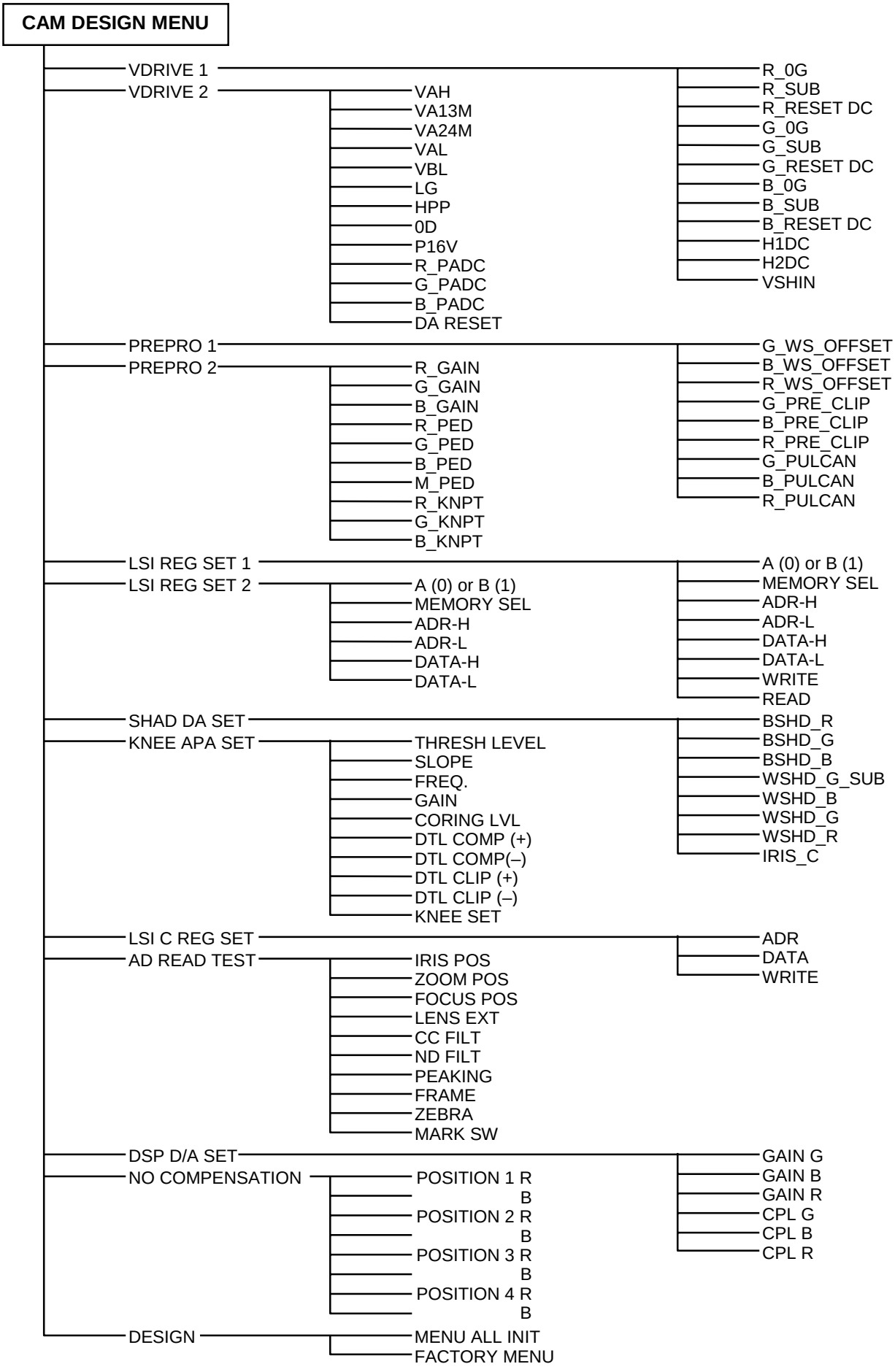
8. Upon completion of the settings, press the MENU button. Then the settings are now saved, exit the settings menu mode, and return-to the normal operation mode.

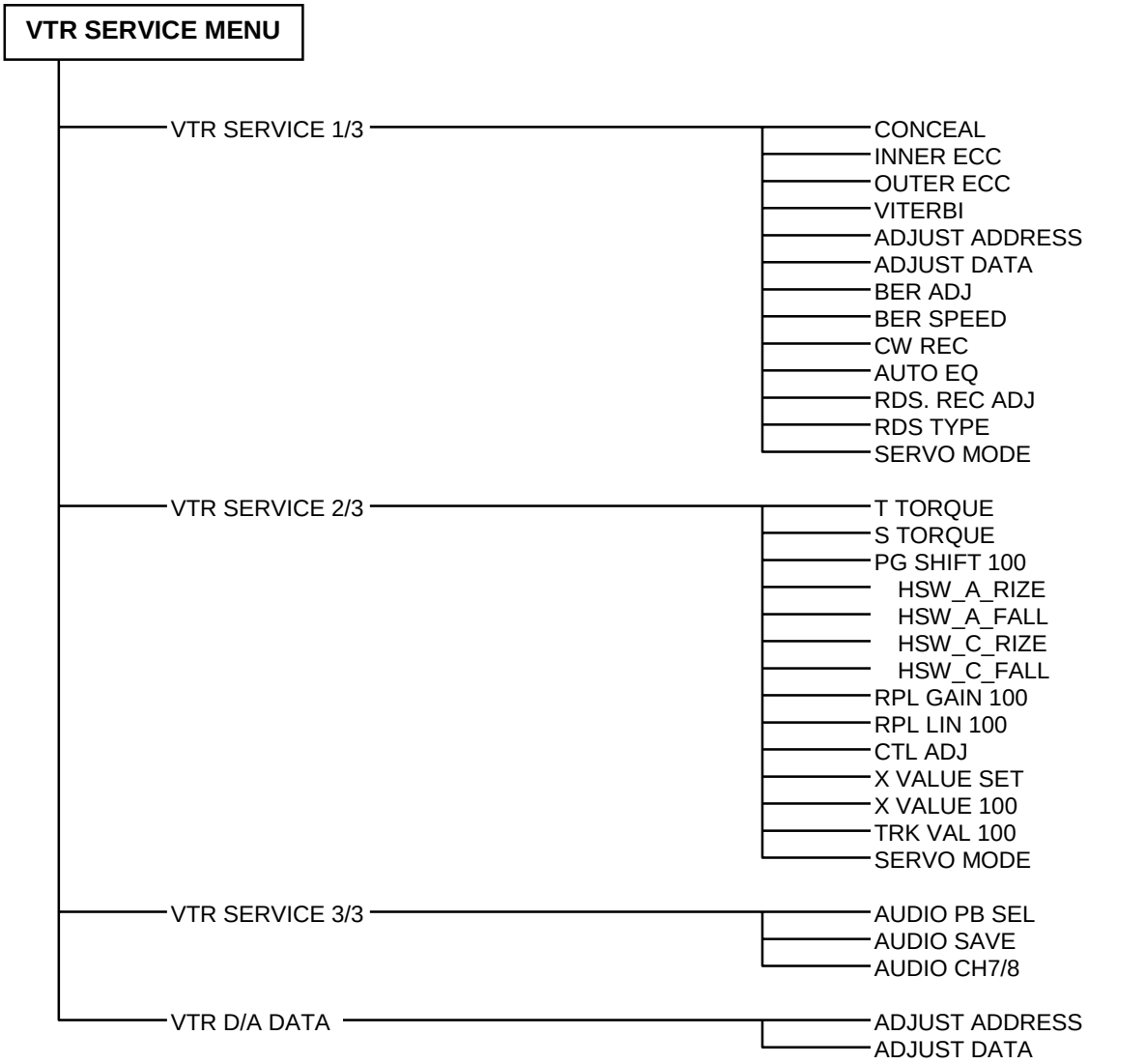
NOTE :

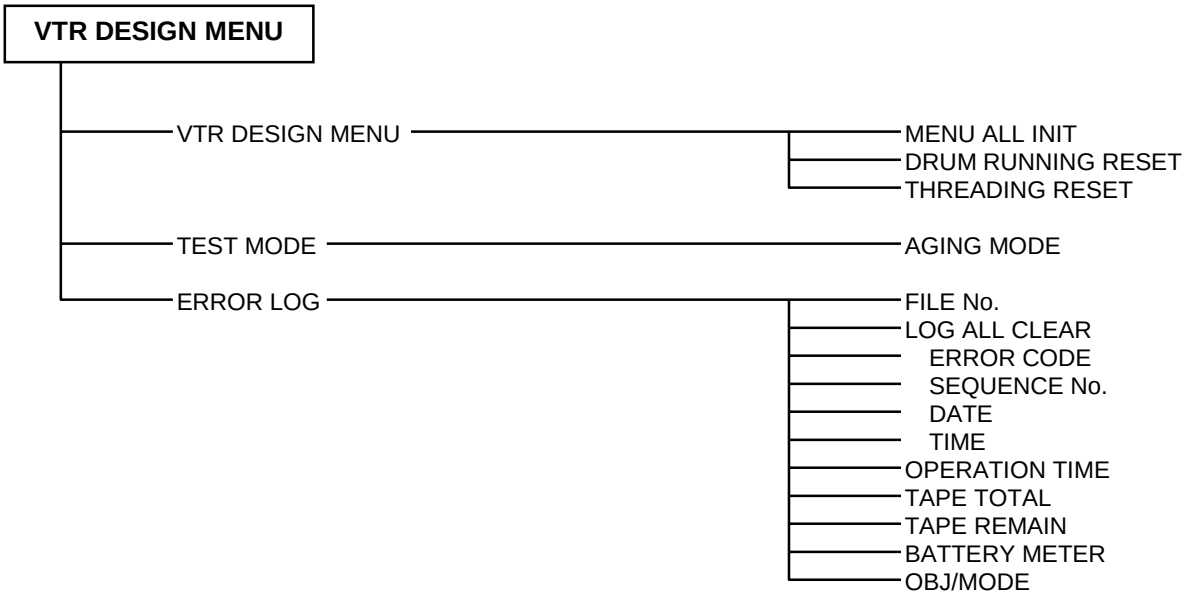
To exit the camera unit's menu, press the MENU button twice. When the MENU button is pressed once, operation is transferred to the VTR unit's menu.

8-4. Setting Menu Configurations




CAM DESIGN MENU
VDRIVE 1
VDRIVE 2
VAH
VA13M
VA24M
VAL
VBL
LG
HPP
0D
P16V
R_PADC
G_PADC
B_PADC
DA RESET
R_0G
R_SUB
R_RESET DC
G_0G
G_SUB
G_RESET DC
B_0G
B_SUB
B_RESET DC
H1DC
H2DC
VSHIN
PREPRO 1
PREPRO 2
R_GAIN
G_GAIN
B_GAIN
R_PED
G_PED
B_PED
M_PED
R_KNPT
G_KNPT
B_KNPT
G_WS_OFFSET
B_WS_OFFSET
R_WS_OFFSET
G_PRE_CLIP
B_PRE_CLIP
R_PRE_CLIP
G_PULCAN
B_PULCAN
R_PULCAN
LSI REG SET 1
LSI REG SET 2
A (0) or B (1)
MEMORY SEL
ADR-H
ADR-L
DATA-H
DATA-L
A (0) or B (1)
MEMORY SEL
ADR-H
ADR-L
DATA-H
DATA-L
WRITE
READ
SHAD DA SET
KNEE APA SET
THRESH LEVEL
SLOPE
FREQ.
GAIN
CORING LVL
DTL COMP (+)
DTL COMP(–)
DTL CLIP (+)
DTL CLIP (–)
KNEE SET
BSHD_R
BSHD_G
BSHD_B
WSHD_G_SUB
WSHD_B
WSHD_G
WSHD_R
IRIS_C
LSI C REG SET
AD READ TEST
IRIS POS
ZOOM POS
FOCUS POS
LENS EXT
CC FILT
ND FILT
PEAKING
FRAME
ZEBRA
MARK SW
ADR
DATA
WRITE
DSP D/A SET
NO COMPENSATION
POSITION 1 R
B
POSITION 2 R
B
POSITION 3 R
B
POSITION 4 R
B
GAIN G
GAIN B
GAIN R
CPL G
CPL B
CPL R
DESIGN
MENU ALL INIT
FACTORY MENU


VTR SERVICE MENU
VTR SERVICE 1/3
CONCEAL
INNER ECC
OUTER ECC
VITERBI
ADJUST ADDRESS
ADJUST DATA
BER ADJ
BER SPEED
CW REC
AUTO EQ
RDS. REC ADJ
RDS TYPE
SERVO MODE
VTR SERVICE 2/3
T TORQUE
S TORQUE
PG SHIFT 100
HSW_A_RIZE
HSW_A_FALL
HSW_C_RIZE
HSW_C_FALL
RPL GAIN 100
RPL LIN 100
CTL ADJ
X VALUE SET
X VALUE 100
TRK VAL 100
SERVO MODE
VTR SERVICE 3/3
AUDIO PB SEL
AUDIO SAVE
AUDIO CH7/8
VTR D/A DATA
ADJUST ADDRESS
ADJUST DATA


VTR DESIGN MENU
VTR DESIGN MENU
MENU ALL INIT
DRUM RUNNING RESET
THREADING RESET
TEST MODE
AGING MODE
ERROR LOG
FILE No.
LOG ALL CLEAR
ERROR CODE
SEQUENCE No.
DATE
TIME
OPERATION TIME
TAPE TOTAL
TAPE REMAIN
BATTERY METER
OBJ/MODE

9. Service Menu Item Contents

< CAMERA Section >
9-1. CAM SERVICE MENU

ITEM		SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
SERVICE ADJ	R GAMMA (SERV)	-30-+30	00	Adjustment for R GAMMA.
	G GAMMA (SERV)	-30-+30	00	Adjustment for G GAMMA.
	B GAMMA (SERV)	-30-+30	00	Adjustment for B GAMMA.
DEFECT COMPENSA-TION	COMPENSATION	ON/OFF	ON	ON/OFF switching of blemish compensation.
	COMP ON GAIN	-3dB-+30dB	12dB	Specified gain of blemish compensation.
	INTERLACE MODE	PDMIX/FRAME	PDMIX	Select a way of correct operation.
	R CH	AVE/OFSET	AVE	Adjacent Picture Element Compensation/ Level Decrease
	G CH	AVE/OFSET	AVE	
	B CH	AVE/OFSET	AVE	
	TRIPLE OFFSET	BAB/BBA	BAB	3 adjacent picture elements decrease.
	CURSOR BOX	ON/OFF	ON	Indicate the box on the cursor.
	READ DATA	ON/OFF	OFF	Read the defect data.
	WRITE DATA	ON/OFF	OFF	Write the defect data.
ENTRY (AUTO)	PICKUP LEVEL R	1-40	15	Detection Level of blemish.
	PICKUP LEVEL G	1-40	10	Detection Level of blemish.
	PICKUP LEVEL B	1-40	25	Detection Level of blemish.
	START	ON/OFF	OFF	ON/OFF Switching of Auto detection.
	NG LIST NO	0-63	000	Display the NG List No.
	SELECT	OFF/A/B	OFF	Factory Use
	ENTRY	ON/OFF	OFF	Factory Use
	CURSOR DISP	ON/OFF	ON	Factory Use
ENTRY (MANUAL)	H CURSOR COARSE	00-08	03	Coarse Adjustment for Horizontal Cursor Position
	H CURSOR FINE	00-FF	80	Fine Adjustment for Horizontal Cursor Position
	V CURSOR COARSE	00-04	02	Coarse Adjustment for Vertical Cursor Position
	V CURSOR FINE	00-FF	80	Fine Adjustment for Vertical Cursor Position
	DEFECT SIZE	1-3	1	Sequential Number of blemish.
	DEFECT COLOR	Y/R/G/B	Y	The color which has blemish.
	GAIN	ON/OFF	ON	ON/OFF switching of compensation followed gain.
	OFFSET LEVEL A	0-255	100	Set the decrease value.
	OFFSET LEVEL B	0-255	100	Set the decrease value.
	ENTRY	ON/OFF	OFF	ON/OFF switching of blemish entry of above data.
	CANCEL	ON/OFF	OFF	Cancel for just before entry.
EDIT/DELETE	DEFECT NO.	0-255	0	Indicate the blemish data of specified number.
	DEFECT SIZE	1-3	1	Sequential Number of blemish.
	DEFECT COLOR	Y/R/G/B	Y	The color which has blemish.
	GAIN	ON/OFF	ON	ON/OFF switching of compensation followed gain.
	OFFSET LEVEL A	0-255	100	Set the decrease value.
	OFFSET LEVEL B	0-255	100	Set the decrease value.
	CHANGE	ON/OFF	OFF	Entry the above data.
	DELETE	ON/OFF	OFF	Delete above entry data.
	ALL DATA CLEAR	ON/OFF	OFF	Delete all of entry data.
WHITE SHADING	DETECTION (DIGITAL)	---	---	Execute the Digital white shading.
CAM SERVICE CARD R/W	R/W SEL	DESIGN/SHADING/DEFECT	---	Select the R/W DATA
	READ	---	---	Read the DATA from the card.
	WRITE	---	---	Write the DATA to the card.

9-2. CAM DESIGN MENU

ITEM		SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
VDRIVE 1	R_OG	00-FF	FF	OG voltage setting of R CCD.
	R_SUB	00-FF	7E	Sub voltage setting of R CCD.
	R_RESET DC	00-FF	26	Reset DC voltage setting of R CCD.
	G_OG	00-FF	FF	OG voltage setting of G CCD.
	G_SUB	00-FF	7E	Sub voltage setting of G CCD.
	G_RESET DC	00-FF	26	Reset DC voltage setting of G CCD.
	B_OG	00-FF	FF	OG voltage setting of B CCD.
	B_SUB	00-FF	7E	Sub voltage setting of B CCD.
	B_RESET DC	00-FF	26	Reset DC voltage setting of B CCD.
	H1DC	00-FF	80	H1 DC setting value of CCD.
	H2DC	00-FF	80	H2 DC setting value of CCD.
	VSHIN	00-FF	FF	Read voltage of CCD.
VDRIVE 2	VAH	00-FF	2E	Read Out Pulse voltage of CCD (VH)
	VA13M	00-FF	00	Transfer Pulse voltage of CCD (VM13)
	VA24M	00-FF	FF	Transfer Pulse voltage of CCD (VM24)
	VAL	00-FF	40	Transfer Pulse voltage of CCD (VAL)
	VBL	00-FF	40	Transfer Pulse voltage of CCD (VBL)
	LG	00-FF	6A	Output Amp Voltage of CCD (LG)
	HPP	00-FF	FF	H Transfer Pulse voltage of CCD (H)
	0D	00-FF	FF	Output Amp Voltage of CCD (OG)
	P16V	00-FF	FF	CCD Drive voltage (16V)
	R_PADC	00-FF	A8	Offset Adjustment for Rch Pre Amp
	G_PADC	00-FF	98	Offset Adjustment for Gh Pre Amp
	B_PADC	00-FF	C7	Offset Adjustment for Bch Pre Amp
	DA RESET	OFF/ON	OFF	Initialize the all DA data.
PRE PROCESS1	G_WS_OFFSET	-----	-----	G WHITE SHADING OFFSET Adjustment
	B_WS_OFFSET	-----	-----	B WHITE SHADING OFFSET Adjustment
	R_WS_OFFSET	-----	-----	R WHITE SHADING OFFSET Adjustment
	G_PRE_CLIP	-----	-----	Factory Use (Fixed at Factory)
	B_PRE_CLIP	-----	-----	Factory Use (Fixed at Factory)
	R_PRE_CLIP	-----	-----	Factory Use (Fixed at Factory)
	G_PULCAN	-----	-----	G PULSE CANCEL Adjustment
	B_PULCAN	-----	-----	B PULSE CANCEL Adjustment
	R_PULCAN	-----	-----	R PULSE CANCEL Adjustment
PRE PROCESS2	R_GAIN	-----	-----	AWB Adjustment Value
	G_GAIN	-----	-----	
	B_GAIN	-----	-----	
	R_PED	-----	-----	ABB Adjustment Value
	G_PED	-----	-----	
	B_PED	-----	-----	
	M_PED	-----	-----	Master Pedestal Value (For 0IRE Adjustment)
	G_KNPT	-----	-----	G Knee point value
	B_KNPT	-----	-----	B Knee point value
	R_KNPT	-----	-----	R Knee point value

ITEM		SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
LSI REG SET1	A (0) or B (1)	-----	-----	Not used
	MEMORY SEL	-----	-----	Not used
	ADR_H	-----	-----	Data address of Flash memory (at CAM_SYS)
	ADR_L	-----	-----	
	DATA_H	-----	-----	Data value of Flash memory (at CAM_SYS)
	DATA_L	-----	-----	
	WRITE	-----	-----	STORE command of Adjustment data (To Flash memory)
	READ	-----	-----	READ command of Adjustment data (From Flash memory)
LSI REG SET2	A (0) or B (1)	-----	-----	Not Used
	MEMORY SEL	-----	-----	Not Used
	ADR_H	-----	-----	Not Used
	ADR_L	-----	-----	Not Used
	DATA_H	-----	-----	Not Used
	DATA_L	-----	-----	Not Used
SHAD DA SET	BSHD_R	-----	-----	Factory Use only (Fixed at Factory)
	BSHD_G	-----	-----	
	BSHD_B	-----	-----	
	WSHD_G_SUB	-----	-----	
	WSHD_B	-----	-----	
	WSHD_G	-----	-----	
	WSHD_R	-----	-----	
	IRIS_C	-----	-----	
KNEE APA SET	TRESH LEVEL	-----	-----	Not Used
	SLOPE	-----	-----	
	FREQ	-----	-----	
	GAIN	-----	-----	
	CORING LVL	-----	-----	
	DTL-COMP (+)	-----	-----	
	DTL-COMP (–)	-----	-----	
	DTL-CLIP (+)	-----	-----	
	DTL-CLIP (–)	-----	-----	
	KNEE SET	-----	-----	
LSIC REGSET	ADR	-----	-----	Not Used
	DATA	-----	-----	Not Used
	WRITE	-----	-----	Not Used
AD READ TEST	IRIS POS	-----	-----	Lens iris position information
	ZOOM POS	-----	-----	Lens zoom position information
	FOCUS POS	-----	-----	Lens focus position information
	LENS EXT	-----	-----	Lens extender position information
	CC FILT	-----	-----	CC Filter position information
	ND FILT	-----	-----	ND Filter position information
	PEAKING	-----	-----	Not Used
	FRAME	-----	-----	Not Used
	ZEBRA	-----	-----	Information of Zebra pattern on Viewfinder (ON or OFF Information)
	MARK SW	-----	-----	Not Used

ITEM		SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
DSP D/A SET	GAIN G	-----	-----	G A/D converter input gain adjustment
	GAIN B	-----	-----	B A/D converter input gain adjustment
	GAIN R	-----	-----	R A/D converter input gain adjustment
	CPL G	-----	-----	G A/D converter input clamp level adjustment
	CPL B	-----	-----	B A/D converter input clamp level adjustment
	CPL R	-----	-----	R A/D converter input clamp level adjustment
ND COMPENSATION	POSITION1 R	-127-+128	0	R GAIN Adjustment at ND FILTER POSITION 1.
	B	-127-+128	0	B GAIN Adjustment at ND FILTER POSITION 1.
	POSITION2 R	-127-+128	0	R GAIN Adjustment at ND FILTER POSITION 2.
	B	-127-+128	0	B GAIN Adjustment at ND FILTER POSITION 2.
	POSITION3 R	-127-+128	0	R GAIN Adjustment at ND FILTER POSITION 3.
	B	-127-+128	0	B GAIN Adjustment at ND FILTER POSITION 3.
	POSITION4 R	-127-+128	0	R GAIN Adjustment at ND FILTER POSITION 4.
	B	-127-+128	0	B GAIN Adjustment at ND FILTER POSITION 4.

< VTR Section >
9-3. VTR SERVICE 1/3

ITEM	SETTING RANGE	INIT. VALUE	Backup	Backup (INH.)	MEANING of SETTING & OUTLINE of FUNCTION
CONCEAL	ON/OFF	ON	NG	NG	CONCEAL setting
INNER ECC	ON/OFF	ON	NG	NG	INNER ECC setting
OUTER ECC	ON/OFF	ON	NG	NG	OUTER ECC setting
VITERBI	ON/OFF	ON	NG	NG	VITERBI setting
ADJUST ADDRESS	01-24h	01	NG	NG	EVR adjustment for VTR part
ADJUST DATA	00-FFh	-----	OK	NG	
BER ADJ	OFF/ L1L3/R1R3/ L2L4/R2R4	OFF	NG	NG	Error rate display mode setting
BER SPEED	SLOW/FAST	SLOW	NG	NG	Speed setting of Error rate display
CW REC	OFF/ 20M/5M	OFF	NG	NG	Frequency setting for RF,EQ adjustment
AUTO EQ	ON/OFF	ON	NG	NG	AUTO RF,EQ setting
RDS. REC ADJ	OFF/ L1/L3/ R1/R3/ L2/L4/ R2/R4	OFF	NG	NG	Head select for RDS (REC SIGNAL DETECTION SYSTEM) adjustment
RDS. TYPE	OFF/BOTH/ REC/SPLAY	BOTH	OK	NG	RDS setting
SERVO MODE	ATF/CTL	ATF	NG	NG	Servo mode setting

9-4. VTR SERVICE 2/3

ITEM	SETTING RANGE	INIT. VALUE	Backup	Backup (INH.)	MEANING of SETTING & OUTLINE of FUNCTION
T TORQUE	-128-+127	0	OK	NG	Take-up reel torque adjustment
S TORQUE	-128-+127	0	OK	NG	Supply reel torque adjustment
PG SHIFT 100			-----	-----	PG shifter adjustment
HSW_A_RIZE	0-4095	0x500	OK	NG	Rising edge
HSW_A_FALL	0-4095	0x500	OK	NG	Falling edge
HSW_C_RIZE	0-4095	0x500	OK	NG	Rising edge
HSW_C_FALL	0-4095	0x500	OK	NG	Falling edge
RPL GAIN 100	-128-+127	64	OK	NG	RPL head ATF pre-filter gain adjustment
RPL LIN 100	OFF/ON	OFF	NG	NG	RPL head LISTA linearity adjustment
CTL ADJ	OFF/ON	OFF	NG	NG	CTL Adjust mode setting
X VALUE SET	OFF/ON	OFF	NG	NG	X value adjustment
X VALUE 100	-128-+127	0	OK	NG	Fine adjustment for X value
TRK VAL 100	-128-+127	0	NG	NG	CTL tracking offset setting
SERVO MODE	ATF/CTL	ATF	NG	NG	Servo mode setting

9-5. VTR SERVICE 3/3

ITEM	SETTING RANGE	INIT. VALUE	Backup	Backup (INH.)	MEANING of SETTING & OUTLINE of FUNCTION
AUDIO PB SEL	CH1,2/ CH3,4/ CH5,6/ CH7,8	CH1,2	NG	NG	
AUDIO SAVE	ACTIVE/OFF	ACTIVE	NG	NG	
AUDIO CH7/8	EE FORCH/ EE,PB	EE,PB	OK	OK	

9-6. VTR DESIGN MENU

ITEM	SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
MENU ALL INIT	-----	-----	
DRUM RUNNING RESET	-----	-----	
THREADING RESET	-----	-----	

9-7. TEST MODE

ITEM	SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
AGING MODE	OFF/ON	OFF	ON : TEST MODE (VTR RUNNING TEST) (Repeat 5 minutes REC and 1 minute STAND-BY)

9-8. ERROR LOG

ITEM	SETTING RANGE	INIT. VALUE	MEANING of SETTING & OUTLINE of FUNCTION
FILE No.	1-5	1	Be able to select 1 through 5. 1 : Old Error Data → 4 : Recent Error Data 5 : First Error (Cannot delete until execute LOG ALL CLEAR)
LOG ALL CLEAR	OFF/ON	OFF	ON : All Clear Finally, turn OFF or POWER OFF.
ERROR CODE		E-00	
SEQUENCE NO		00	
DATE		00/01/01	
TIME		12 : 34 : 56	
OPERATION TIME		000000Hr	
TAPE TOTAL		120min	
TAPE REMAIN		90min	
BATTERY METER		1-F	Example : "α-F" "α" indicates the meter number. "-F" indicates the blink (flash).
OBJ/MODE	00 00 00 : 00 : 00	00 00 12 : 34 : 56	Indicate the time when OBJ/MODE occurred. Upper - occurred lately ↓ ↓ Lower - occurred formerly
	00 00 00 : 00 : 00	00 00 12 : 34 : 56	
	00 00 00 : 00 : 00	00 00 12 : 34 : 56	
	00 00 00 : 00 : 00	00 00 12 : 34 : 56	
	00 00 00 : 00 : 00	00 00 12 : 34 : 56	

10. Adjustment after Optical Unit Replacement

When replace the Optical Unit (PRE AMP, CCD PULSE, DRIVE Board included), execute the adjustment as following procedures.
In this case, do not need to execute the Optical Unit Adjustment on the “Section 5 : Electrical Adjustment”.

10-1. Input the Adjustment Data

1. Set the Shading Correction to “OFF” as follows.
 *** CAM MAIN MENU 4 ***
 < BLACK SHADING >
 → CORRECT (DIG) : “ON“ → “OFF”
 < WHITE SHADING >
 → CORRECT : “ON“ → “OFF”

2. Input the adjustment data following the Adjustment Data Sheet which is included with optical unit.

< Items mentioned on the Adjustment Data Sheet >
(8 items)
 *** CAM DESIGN MENU ***
 < VDRIVE 1 >
 → R-SUB → R-RESET DC
 → G-SUB → G-RESET DC
 → B-SUB → B-RESET DC

 *** CAM DESIGN MENU ***
 < VDRIVE 2 >
 → H1-DC
 → VSHIN

3. Input or execute the following setting by menu. (Memory of Setting Value)
 *** CAM DESIGN MENU ***
 < LSI REG SET 1 >
 → ADR_H : “FF” (input)
 → ADR_L : “01” (input)
 → WRITE : “OFF” → “ON” (execute)

10-2. Electrical Adjustment

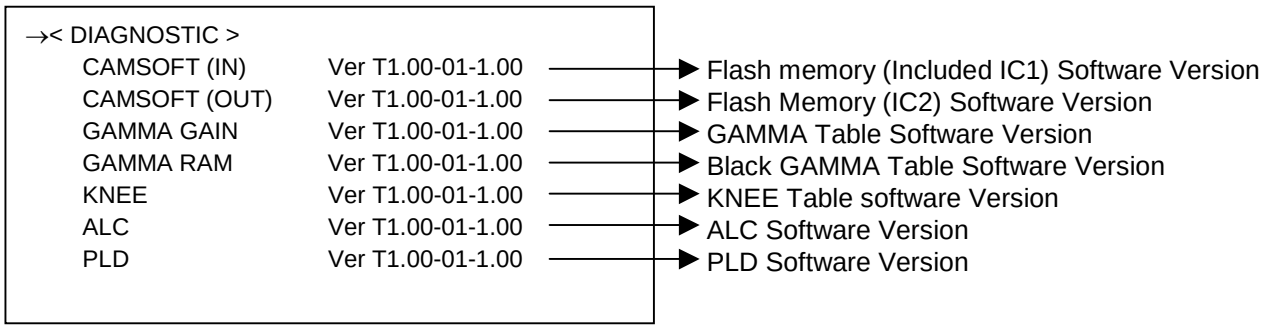
Execute the Confirmation and Adjustment as following items. (Refer to “Section 5 : Electrical Adjustment”)

1. 0IRE PED Adjustment
2. R,G,B PRE AMP DC Confirmation
3. R,G,B PULCAN Adjustment
4. R,G,B PREPRO Level Confirmation
5. R,G,B PED TRACK Adjustment
6. Modulation Confirmation
7. R,G,B W/S (WHITE SHADING) OFFSET Adj.
8. Digital W/S (WHITE SHADING) Adjustment
9. Digital D/S (DARK SHADING) Adjustment
10. FLARE Adjustment
11. R,B GAMMA Adjustment

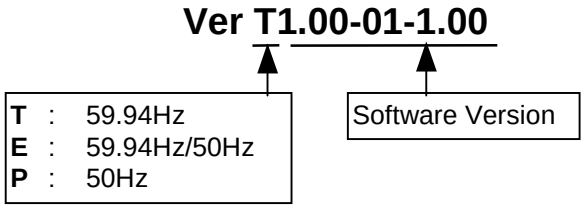
11.DIAG-MENU Display

11-1-1. Version Display Operation Procedure (CAMERA Part)

1. Open the “ENG menu” (Press “MENU Button” more than 3 second.)
2. Open “**CAM MAIN MENU 4**” page (Press JOG Dial)
3. Select “DIAGNOSTIC” page (Turn and Press JOG Dial), then the Software version for each item can be comfirmed.

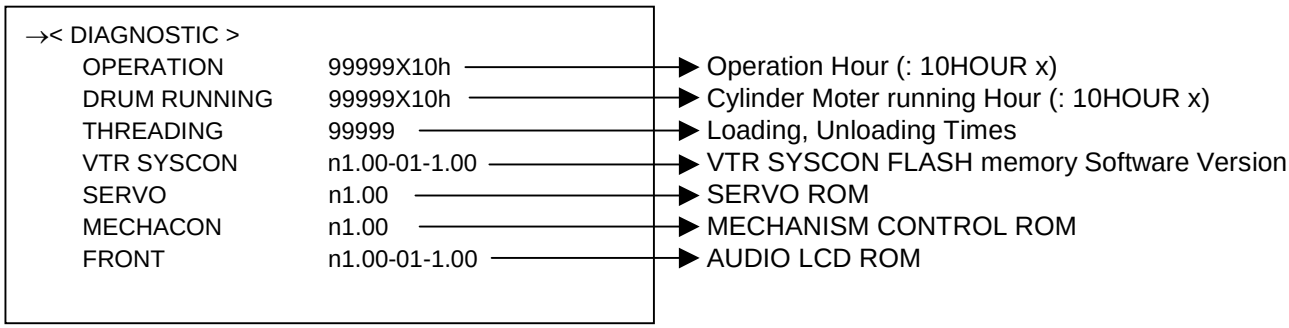


11-1-2. How to read the Version Display

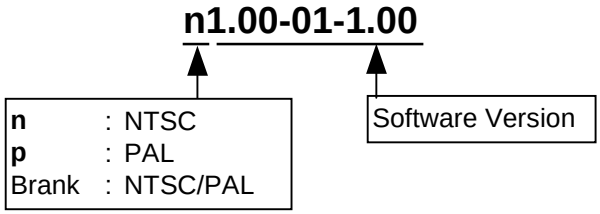


11-2-1. Version Display Operation and Hour Meter Display (VTR Part)

1. Open the “ENG menu” (Press “MENU Button” more than 3 second.)
2. Press “MENU Button” again to open the “VTR MAIN MENU”.
3. Select “DIAGNOSTICS” page (Turn and Press JOG Dial), then the Software version for each item can be comfirmed.

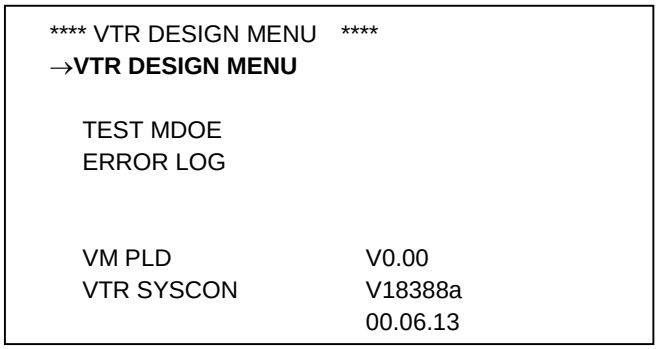


11-2-2. How to read the Version Display

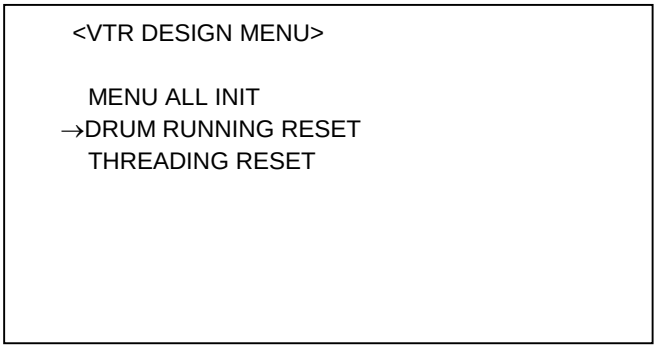


11-2-3. How to Reset Hour Meter

1. Open the “Design Menu” and then press “MENU Button”.
2. Open “**VTR DESIGN MENU**” page. (Press JOG Dial)
3. Select “VTR DESIGN MENU” item. (Turn & press JOG Dial)



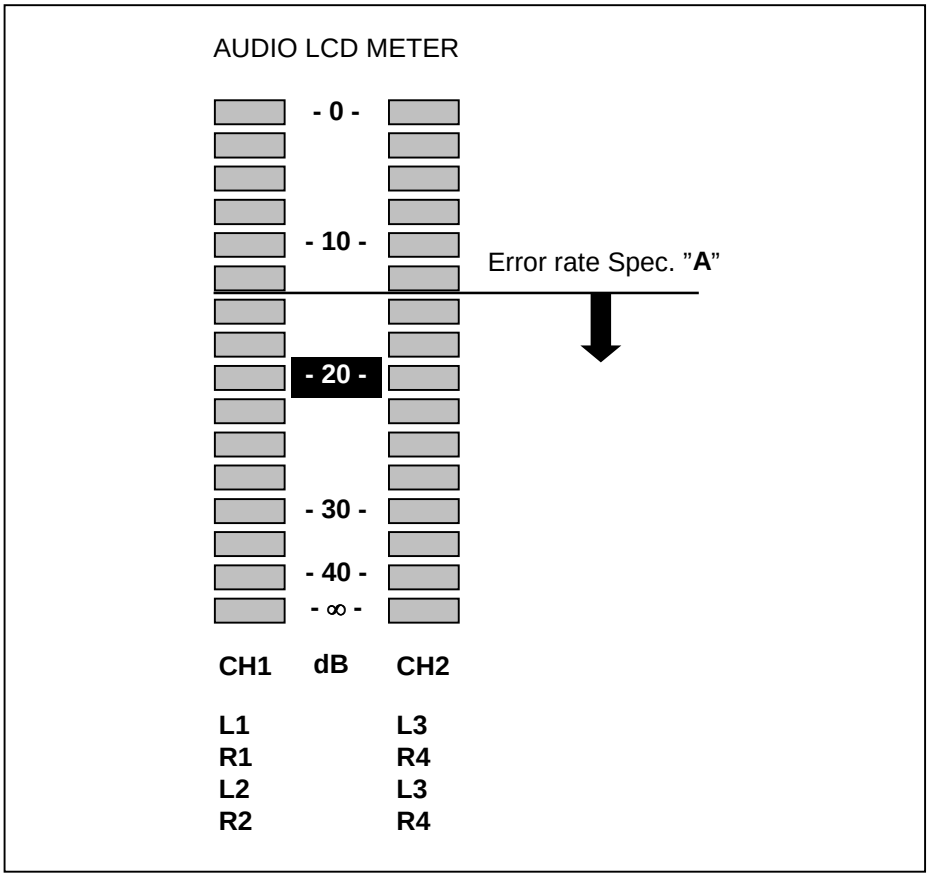
4. After the following figure is displayed, move “→” to the item to reset.



12. Error Rate Display and Confirmation Method

12-1. Error Rate Display Method

1. Open the “VTR SERVICE MENU”.
2. Select “**VTR SERVICE 1/3**” page.(Turn & press JOG Dial)
3. Confirm “**BER SPEED**” setting is “**SLOW**”.
4. Select "**BER ADJ**" by rotating JOG Dial and Select R/P head to be confirmed.
   BER ADJ item : **OFF / L1L3 / R1R3 / L2L4 / R2R4 (exept OFF)**
5. The Error rate will be displayed in the Audio meter on the Audio LCD panel.

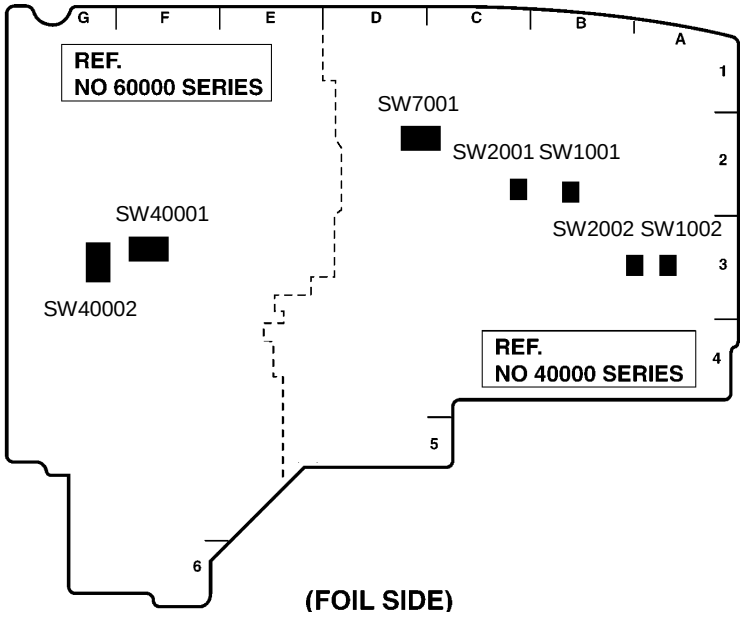


13. Internal Switch Setting Method

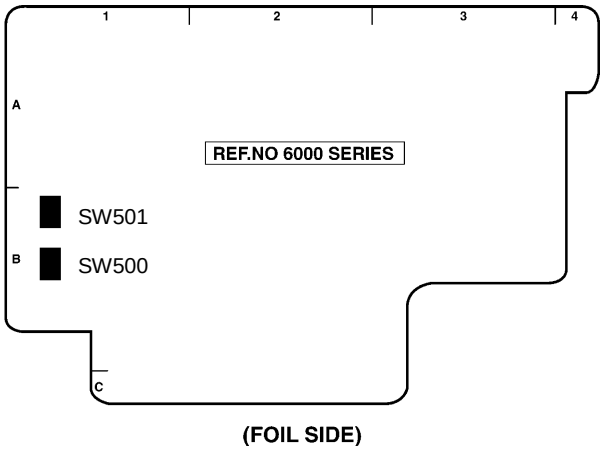
The switche settings on each circuit board are shown below.
"Factory use only" switches must be set to the "Factory setting".

BOARD	Ref. No.	SW	FACTORY SETTING	FEATURE
AUDIO LCD	SW40001	1-7	ON (FIXED)	Factory use only
		8	ON	Not used
	SW40002	1-5	OFF(FIXED)	Factory use only
		6	OFF	ON : ENG SEQURITY ON
	SW47001	1	ON	Factory use only
		2	OFF	Factory use only
		3	ON	Factory use only
		4	OFF	Factory use only
	SW41001	-	-60	REAR CH1 MIC input level setting (-60dBu / -40dBu)
	SW42001	-	-60	REAR CH2 MIC input level setting (-60dBu / -40dBu)
	SW41002	-	-40	FRONT CH1 MIC input level setting (-50dBu / -40dBu)
	SW42002	-	-40	FRONT CH2 MIC input level setting (-50dBu / -40dBu)
VTR SYSCON	SW500	1	OFF (FIXED)	Not used
		2	OFF	EE-ROM write protect (allow is ON side)
		3-4	OFF (FIXED)	Factory use only
	SW501	1	OFF (FIXED)	Not used
		2	OFF	EE-PROM initialize <ROM initialization procedure> 1. Turn Off the unit 2. Switch SW201-2 and SW500-2 to ON → Turn On the unit. 3. After 5 second, initialization is completed → Turn Off the unit.
		3	OFF (FIXED)	Factory use only
		4	OFF (FIXED)	Factory use only

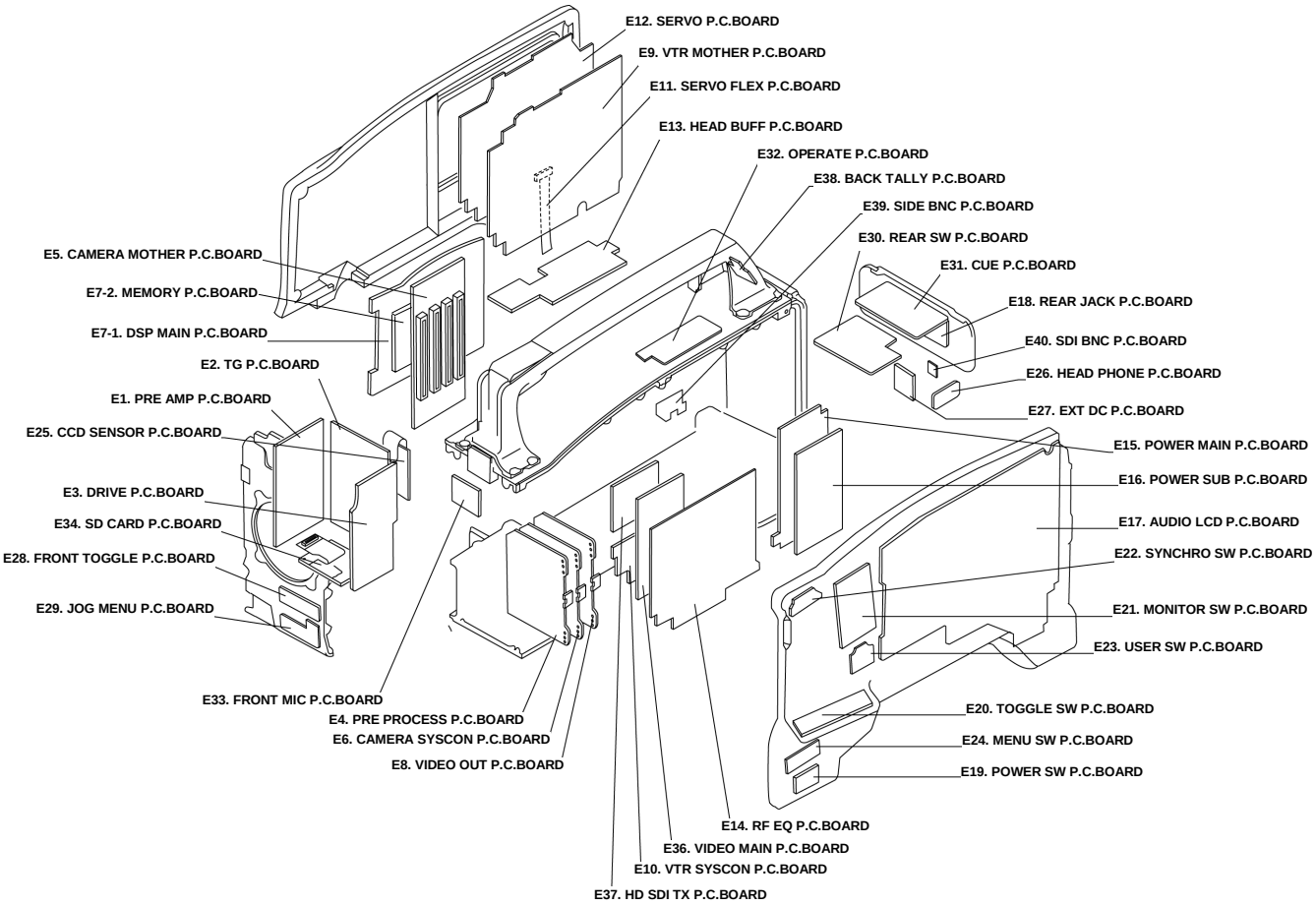
AUDIO LCD board



VTR SYSCON board



14. Circuit board layout



15. PLD Version Upgrade Method

The AJ-HDC27A has two Programmable Logic Devices (PLD) by ALTERA Corporation on CAM_SYS P.C.Board (IC100) and VM (Video Main) P.C.Board (IC321). See following procedures for details.

15-1. Preparation

Equipment	Remarks
CPLD WRITER	VFK1590 (Interface board) VFK1590P2 (Connection cable: Supplied with VFK1590)
D-sub 25pin-25pin Cable	Straight type (male - female), Length must be within 1meter
Upgrade tool software	MAX+plus II Software : www.altera.com/pub/software/asap2.exe Download from above URL and then install to any directory of PC.
Version Upgrade data	IC100 : TDF format file (Include it in “vsi xxxx”) IC321 : POF format file (Include it in “vsi xxxx”) Notice: Flash memory software versions on each P.C.Board sometimes need to be upgraded together with PLD version up. Before PLD version up, confirm the instruction of each vsi file.
Personal Computer	With WINDOWS 95® or 98®

15-2. Connection

IC100 (CAM_SYS P.C.Board)

1. Connect D-sub cable between connector CN201 on VFK1590 and PC.
2. Connect CPLD Writer cable between connector P201 on VFK1590 and connector P100 on CAM_SYS P.C.Board. (Refer to Figure 15-1)
3. Turn on the power of camcorder and then boot-up PC.

IC321 (VM P.C.Board)

1. Connect D-sub cable between connector CN201 on VFK1590 and PC.
2. Connect CPLD Writer cable (VFK1590P2) between connector P201 on VFK1590 and connector P320 on VM P.C.Board. (Refer to Figure 15-1)
3. Turn on the power of camcorder and then boot-up PC.

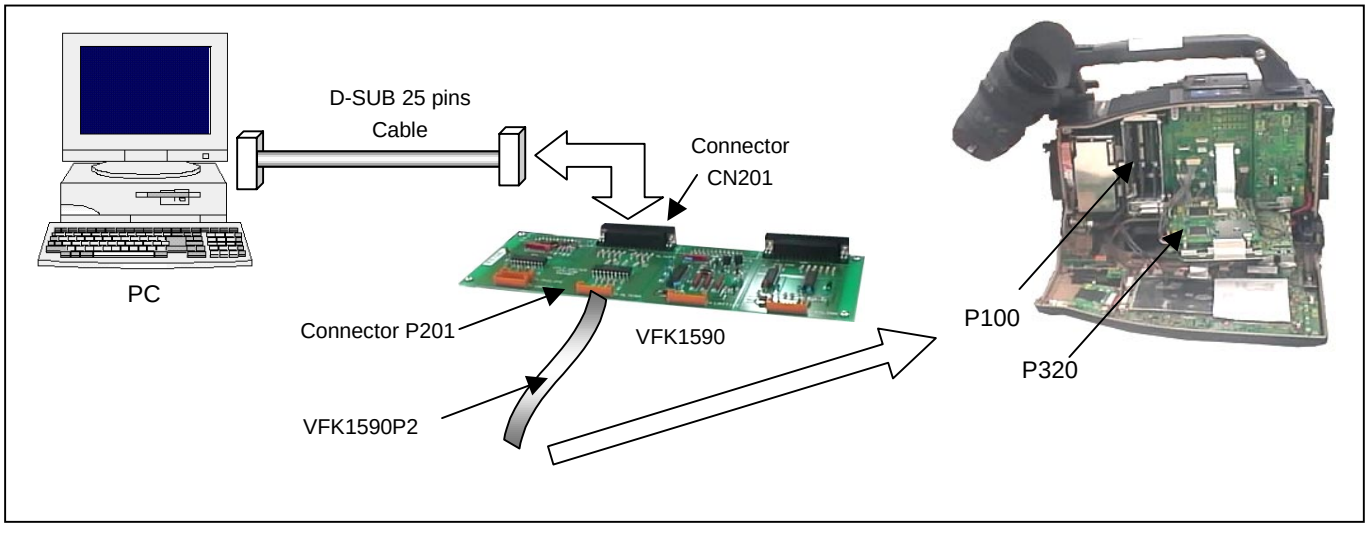
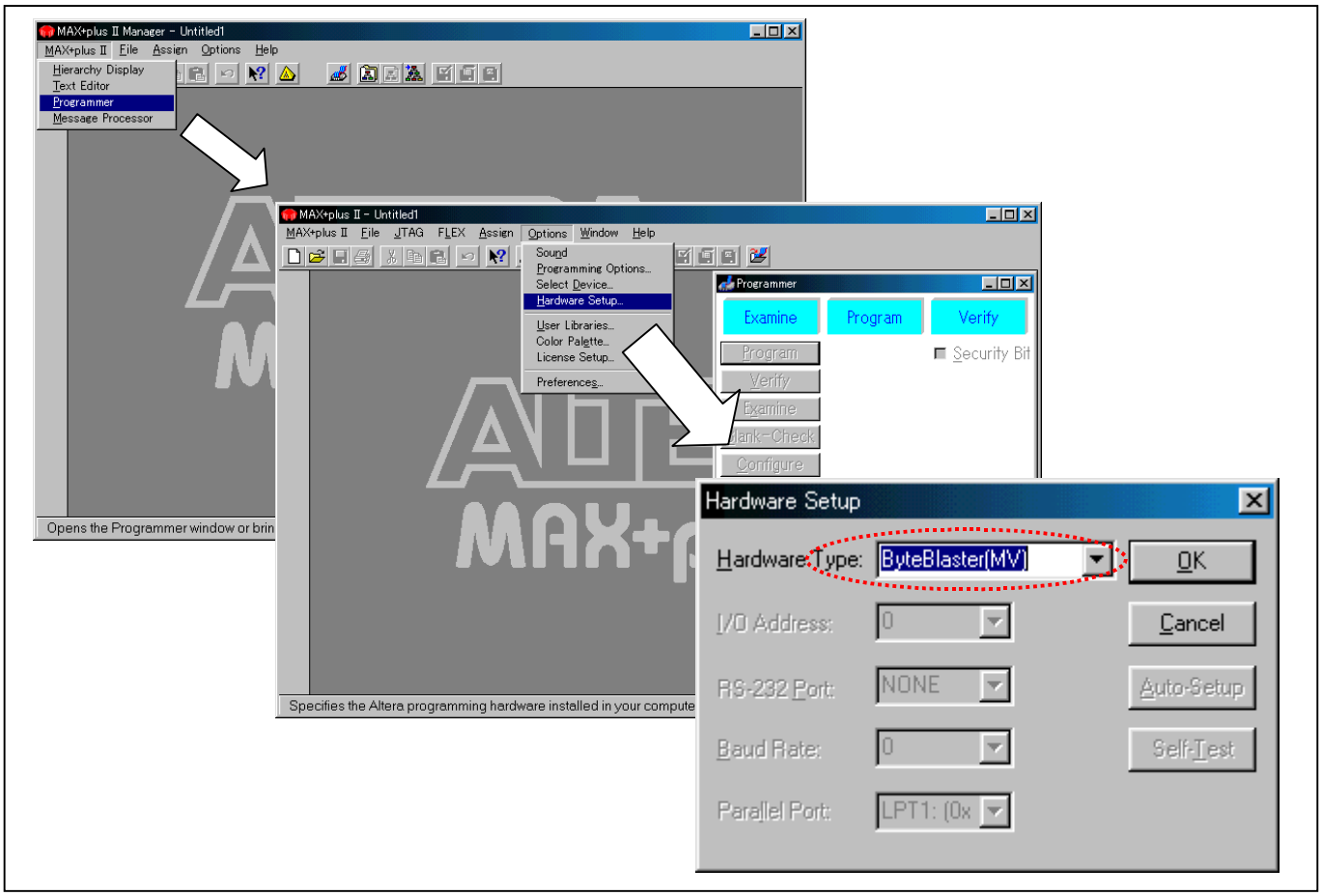


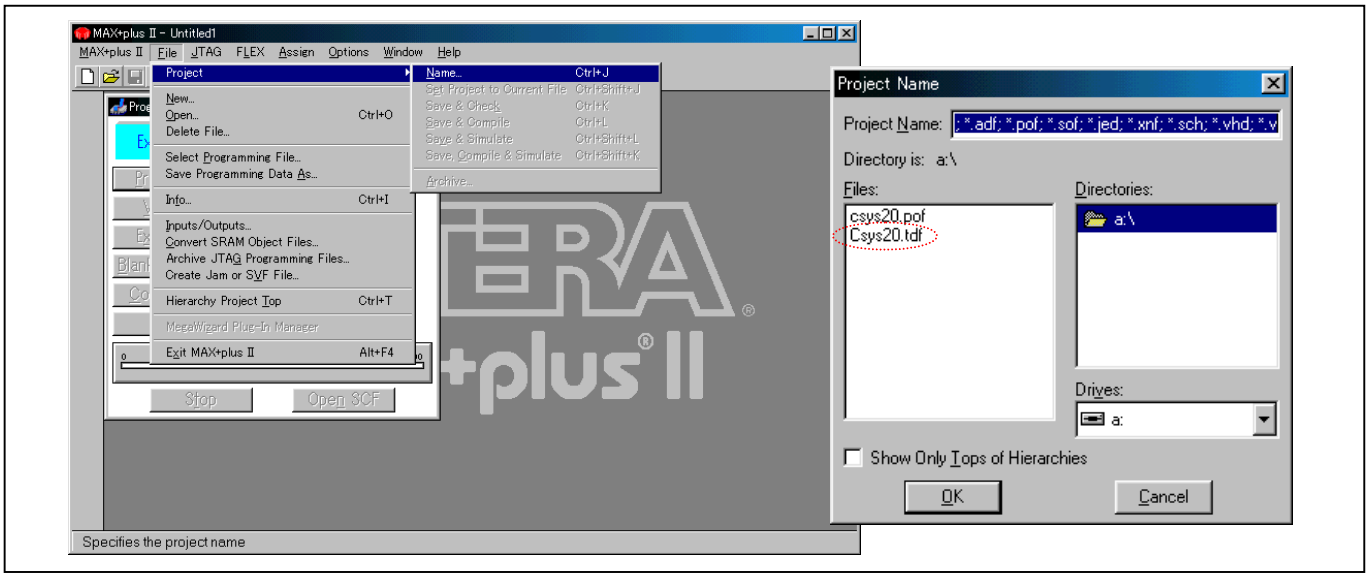
Figure 15-1 Connection

15-3. Version-up Procedures

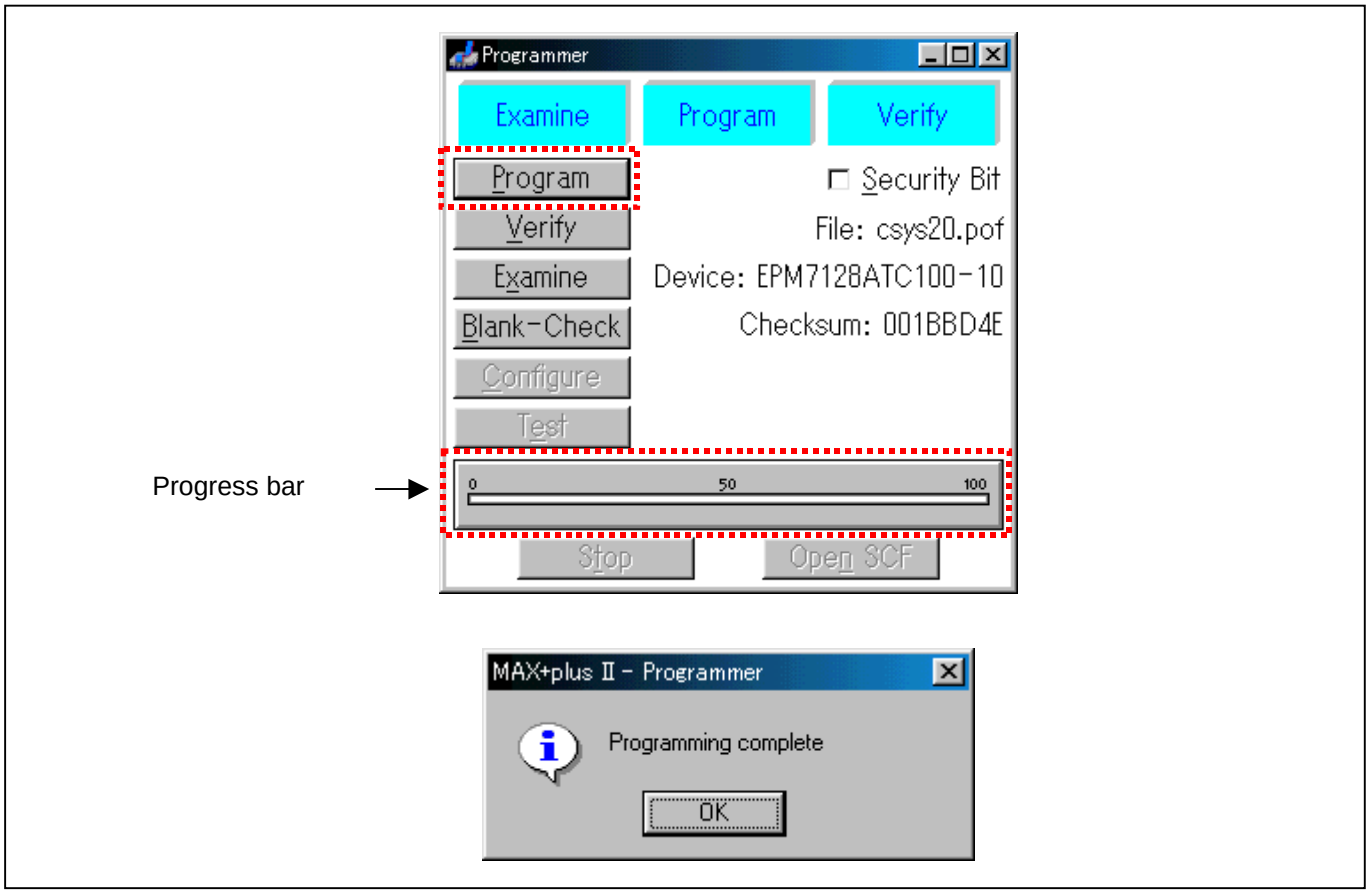
1. Boot up MAX+plus II 9.6 programmer only.
2. On main window, select tab “MAX-plus II” and then ”Programmer”.
3. On main window (Programmer window is displayed), select tab “Option” and then “Hardware setup”.
4. On Hardware Setup dialog, set Hardware Type to “ByteBlaster (MV)”.



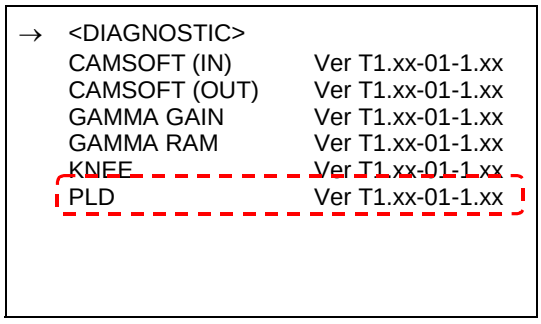
5. On main window, select tab “File”, “Project” and then “Name”.
6. On Dialog of Project Name, select the “TDF file (IC100)” or “POF file (IC321)” and then Click “OK button”.



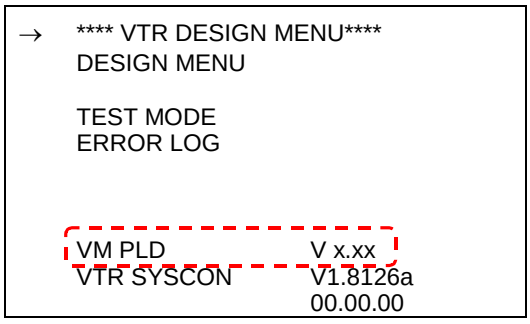
7. Click “Program button” on Programmer dialog.
8. When Progress bar reaches at point of “100”, the message “Programming completed” appears, then PLD version upgrade is completed.
9. Click “OK Button” on “Programming complete” message dialog.



10. Turn the power of camcorder OFF and ON.
11. Confirm the current version of PLD on DIAGNOSTIC page (IC100: CAM SYS Board) and VTR DESIGN page (IC321: VM Board). (See page of INF-10 through 16 in this service manual for how to open each menu screen.)



DIAGNOSTIC page

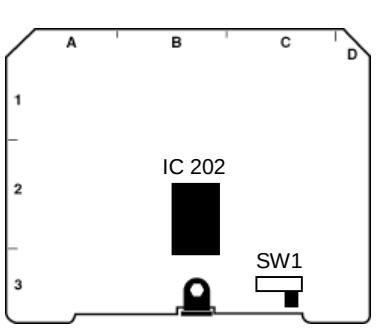


VTR DESIGN page

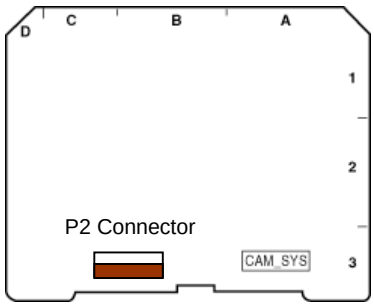
* MAX+PLUS is registered trademark of Altera Corporation in the United States and/or other countries.
* Windows95 and Windows98 are either registered trademarks of Microsoft corporation in the United States and/or other countries.

16. Flash Memory Version Upgrade Method

The AJ-HDC27A has Flash memories IC202 on CAM_SYS P.C.Board, IP100 on VTR_SYS P.C.Board and IC100 on ERVO P.C.Board. Version upgrade procedures for each Memory is shown below.

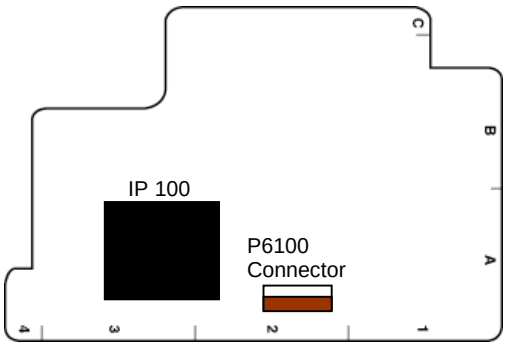


(Component side)

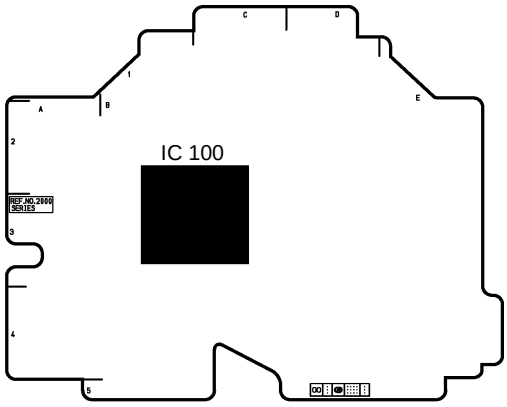


(Solder side)

CAM_SYS P.C.B



VTR_SYS P.C.B (Component side)



SERVO P.C.B (Component side)

16-1. Preparation

16-1-1. Equipment

Name	Remarks
Flash memory version-up tool	VFK1304 (Connection Board and Flat cable)
RS-232C Cable	9pins – 9pins, Cross type, D-SUB
Version upgrade Software	CAM_SYS P.C.B : XXXXX.BAT (come with each Version-up data) VTR_SYS P.C.B : VFK1248E (For WINDOWS 95® or 98® type) SERVO P.C.B : VFK1503
Version-up Data	VVVSI File
Personal Computer	With MS-DOS, Windows95 or Windows 98

* MS-DOS, Windows95 and Windows98 are either registered trademarks of Microsoft corporation in the United States and/or other countries.

16-1-2. Setting of VFK1304A

Before executing version upgrade, Set “Cable type setting” and ”Writing function setting” on VFK1304A as shown below. If any settings are wrong, it can not communicate to PC.

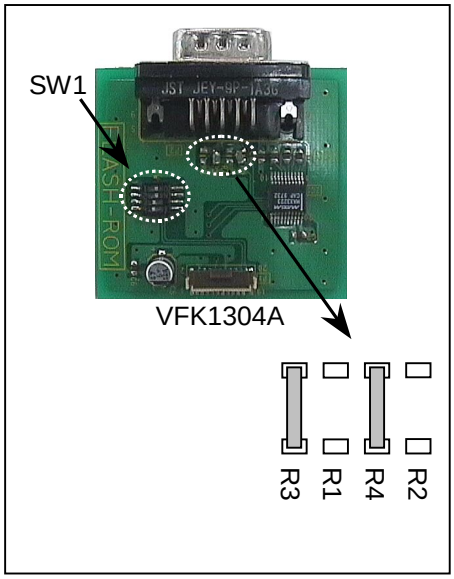
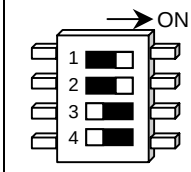
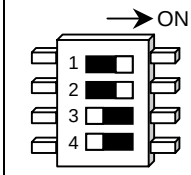
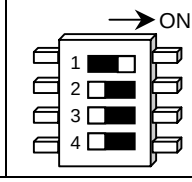


Figure 16-1

Board	Writing function setting (SW1)					Cable type setting (R1, R2, R3, R4)
	SW1	SW2	SW3	SW4		
CAM_SYS	ON	ON	OFF	OFF		R1 = OPEN R2 = OPEN R3 = SHORT R4 = SHORT
VTR_SYS	ON	ON	OFF	OFF		
SERVO	ON	OFF	OFF	OFF		

16-2. Version Upgrade for CAM_SYS P.C.Board

16-2-1. Getting the user data

1. Get the User data with Multimedia Card (See Operating Instructions page numbers 59 – 63 for Details of Getting the User data.)

16-2-2. Connection

1. Connect RS-232C Cable between connector P2 on VFK1304A and COM1 port on PC. (Refer to Figure. 16-2)
2. Connect Flat cable between connector P1 on VFK1304A and connector P2 on CAM_SYS P.C.Board, and then set SW1 on VFK1304A according to Figure. 16-1.
3. Set “SW201” on CAM_SYS P.C.Board to “ON” (Up-side at condition of slot into the unit)
4. Turn on the power of the unit and then boot-up PC (MS-DOS mode).

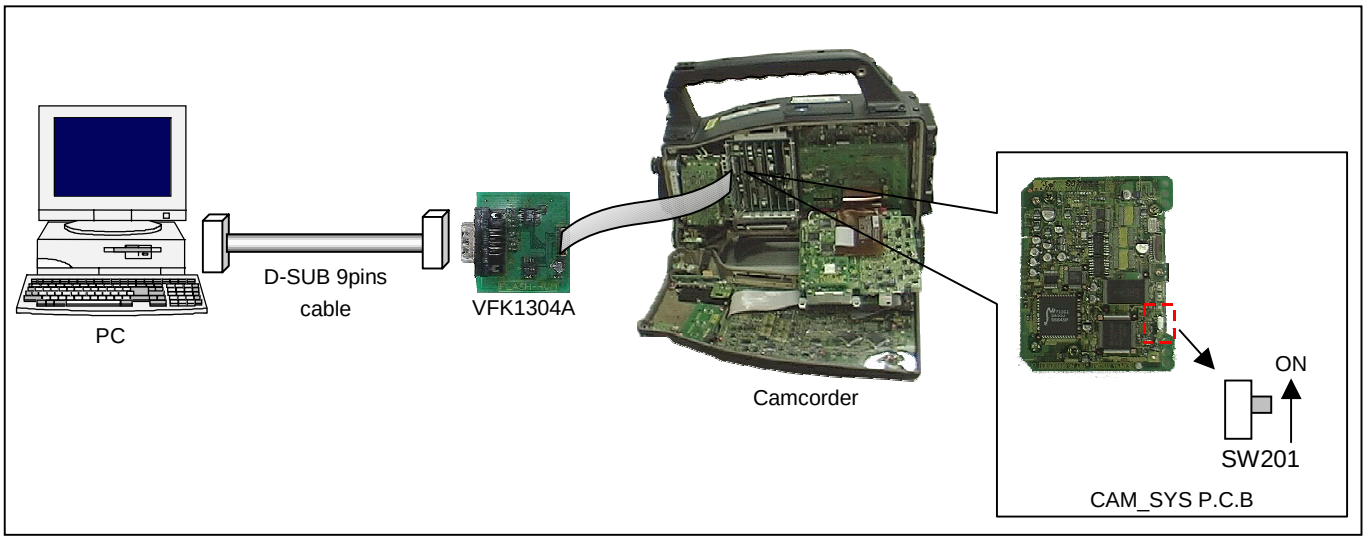
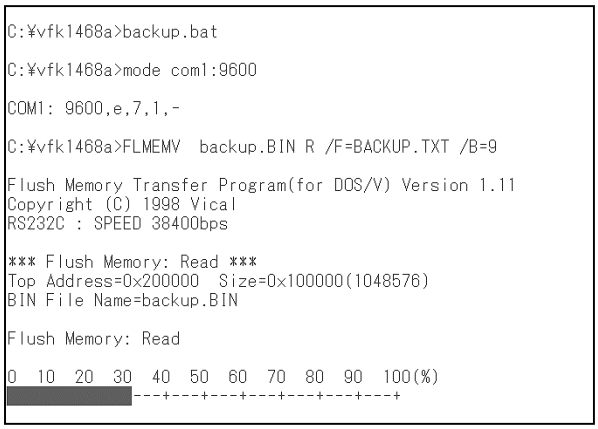


Figure 16-2

16-2-3. Software Version Upgrading

1. Copy all files in “Version up data (vvvsi file)” to arbitrary directory. (Please make a directory)
2. Type “xxxxx.bat” and then hit RETURN key.
3. Data transfer will be started from PC to camcorder. Data transferring scheme is shown below.

Scheme of Flash memory writing
ERASE : Data all clear on Flash memory
WIRTE : Data writing to Flash memory
VERIFY : Verifying data between wrote data and original data



4. When progress bars reaches at 100% position, data transfer is completed.
5. Set “SW201” to OFF side.
6. Turn OFF→ON the power of camcorder and then confirm software’s version.

NOTE: Each software version is indicated on <DIAGNOSTIC> menu screen (CAM MAIN MENU4 page).

16-2-4. Restoring User Data

1. Restore the User data with Multimedia card. (See Operating Instructions page numbers 59 – 63 for Details of restoring the User data.)

16-2-5. Trouble Shooting

Symptoms	Error message “ERROR: RS232C: Line Open Error” is appeared and then data transferring is interrupted.
Cause	Could not communicate between PC and camcorder.
Check point	* Did you use RS-232C cable as designated? (9pins-9pins, Cross) * Did you set SW201 on CAM_SYS P.C.B to “ON” side? * Did you turn on the power of camcorder?

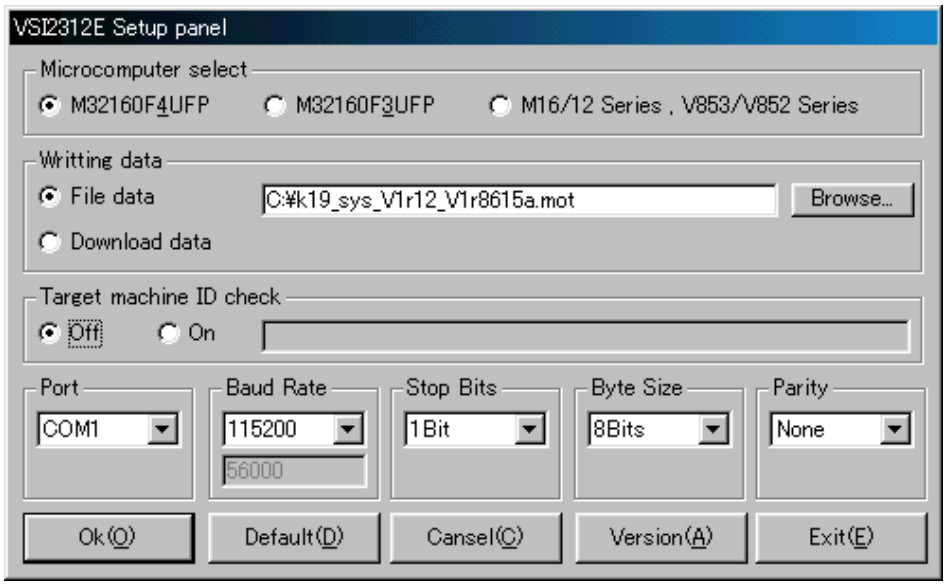
16-3. Version Upgrade for VTR_SYS P.C.Board

16-3-1. Connection

1. Connect RS-232C Cable between connector P2 on VFK1304A and COM1 port on PC. (Refer to Figure. 16-2.)
2. Connect Flat cable between connector P1 on VFK1304A and connector P6100 on VTR_SYS P.C.Board, and then set SW1 on VFK1304A according to Figure. 16-1.
3. Turn on the power of the unit and then boot-up PC (WINDOWS mode).

16-3-2. Software Version Upgrading

1. Copy all files of VFK1248E to arbitrary directory.
2. Double-click the program file icon **"VSI2312E.EXE"**.
3. When this Software is started, a dialog will be opened as shown below.

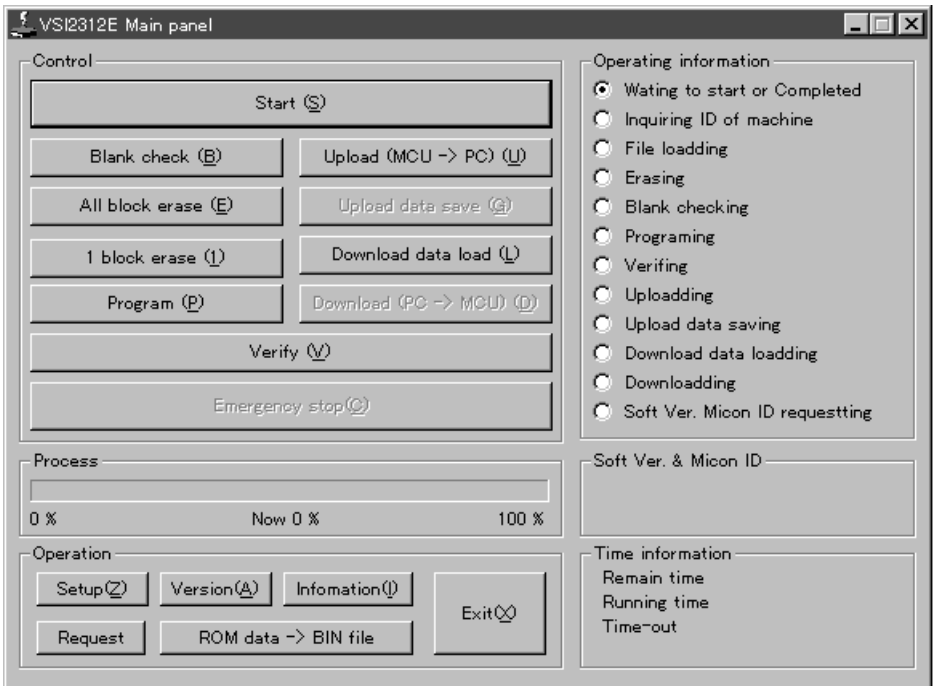


4. Set parameters on **"Setup Panel"** window.
   Microcomputer select..... M32160F4UFP
   Writing data ..... File data

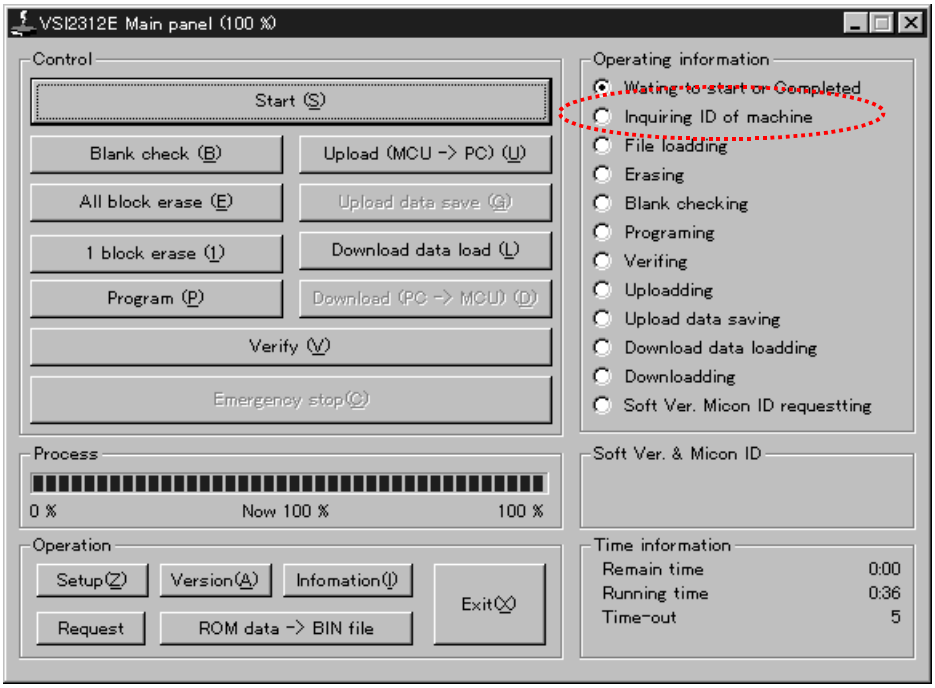
   Enter new version-up data name (XXXX.mot) with full path. You can also use "Browse…" button on the "Setup panel" to select the file name and location of the new version-up data.

   Target machine ID check ..... Off
   Port..... Set the port which RS-232C Cable is connected to PC.
   Baud Rate 115200
   Stop Bits 1Bit
   Byte Size 8Bits
   Parity ..... None

5. When settings on the “Setup panel” is completed, click “OK(O)” button. “VSI212E Main panel” will be opened as shown below.



6. Click “Start (S)” button on the “Main panel” window, (Click “Exit” button to quit, Click “Setup (Z) to RETURN to Setup panel”)
7. After erasing data of the Flash memory, New version-up data will be written to the Flash memory. While processing, progress status can be confirmed by means of “Process” indicator. If the Indicator doesn’t advance for some reason, click “Emergency stop (C)” button and then confirm settings.
8. When Process bar reaches at 100% position and “Waiting to start or Completed” indicator is marked, Version-up is completed, then click “Exit (X)” button.



9. Turn off the power of DC power supply and then set the power SW of camcorder to off. (In this situation, Power SW should not work.)
10. Disconnect VFK1304A and then turn on the power of camcorder.

16-4. Version Upgrading for SERVO P.C.Board

16-4-1. Connection

1. Connect RS-232C Cable between connector P2 on VFK1304A and COM1 port on PC. (Refer to Figure. 16-2.)
2. Connect Flat cable between connector P1 on VFK1304A and connector P9811 on VTR MOTHER P.C.Board, and then set SW1 on VFK1304A according to Figure. 16-1.

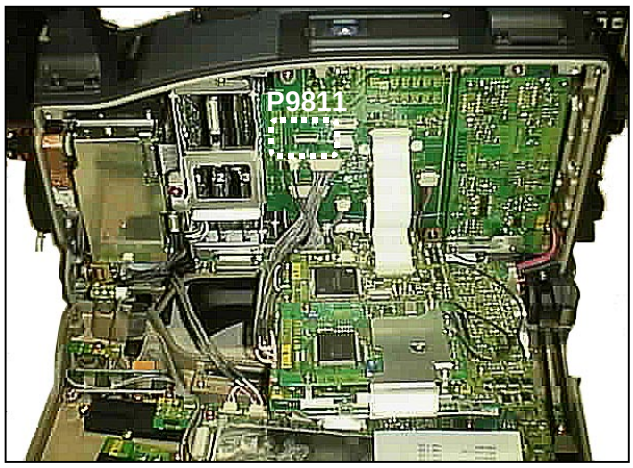


Figure 16-3 Operation side of the Unit

3. Turn on the power of camcorder and then boot up PC (MS-DOS mode).
4. Copy all files of version-up data and SERVO Version upgrade software (VFK1503) to the same directory.

SERVO Version upgrade software (VFK1503) "fw103u.exe"
SERVO Version upgrade data "vsiXXXX.obf"
"vsiXXXX.bat"
"vsiXXXX.ex"

5. Type "vsixxxx.bat" and then hit RETURN key.
6. Type "Y" and then hit RETURN key after display message "DO YOU CONTINUE? Y / N>".
7. Data transfer will be started.
8. After data transfer is finished, turn off the power of the Unit.
9. Disconnect VFK1304A.
10. Turn on the power of camcorder and then confirm software version.

* Windows95, Windows98 and MS-DOS are either registered trademarks of Microsoft corporation in the United States and/or other countries.

17. Blemish Compensation Method

Features

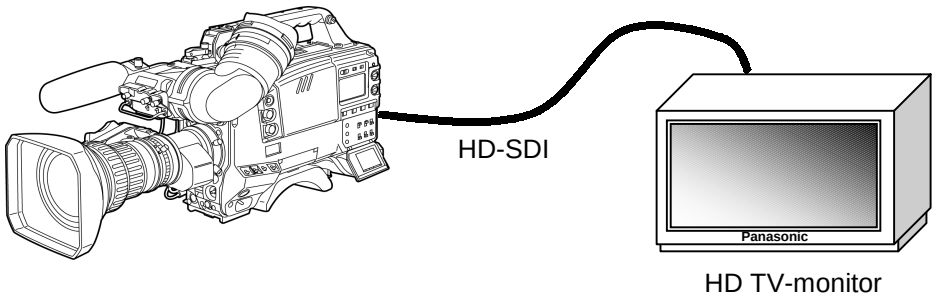
a) Possible to compensate each color signal individually (R, G and B). (Total amount : 256 points)
b) It is possible to compensate blemish without extra equipment (PC, Service fixtures etc.).
c) **Automatic blemish compensation function**. Also it is (possible to manual compensate too.)

17-1. Preparation

1. Need about 2-hours aging before start an adjustment.
2. Set WHITE BAL SW, CC and ND filter wheels as shown below.
   WHITE BAL SW : PRST
   CC FILTER : Position “B”
   ND FILTER : Position No. “1”
3. Close LENS Iris and then execute “ABB” by the front switch.

17-2. Connection

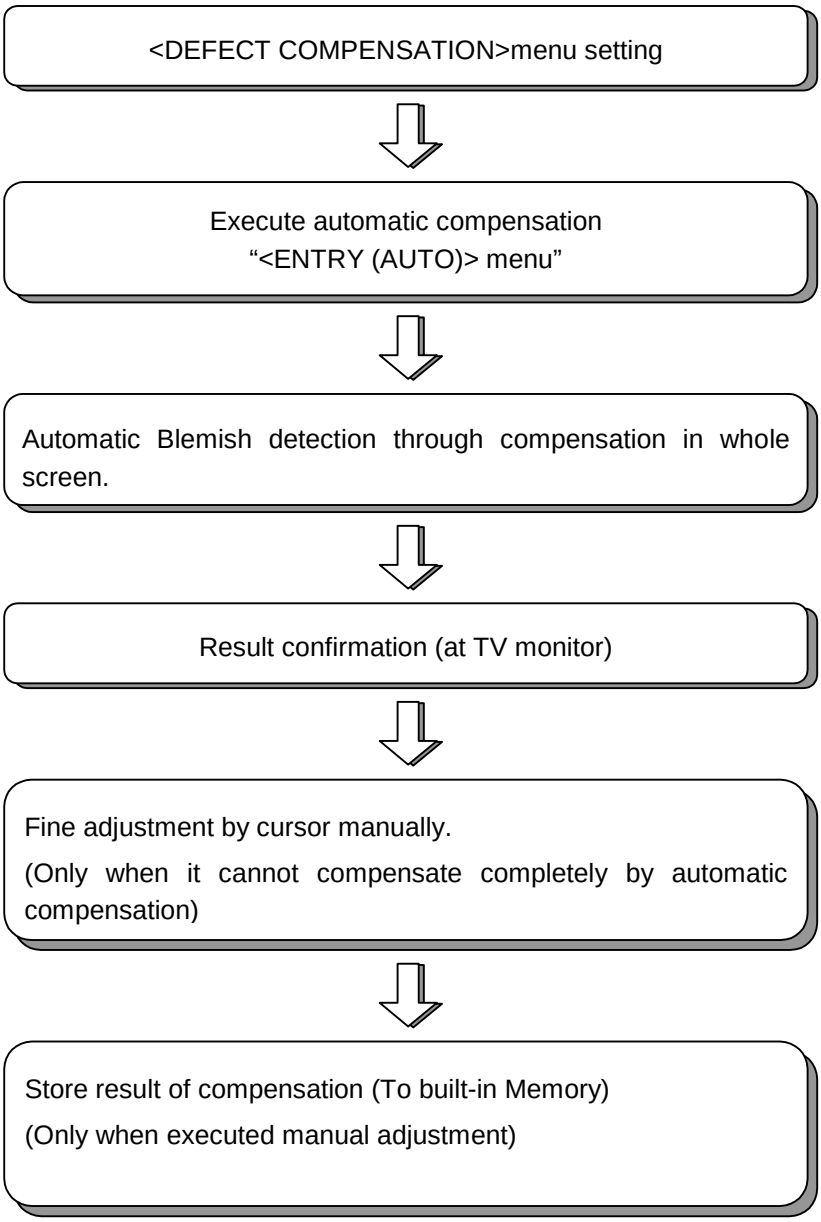
To facilitate blemish compensation’s work, connect the camcorder and the HD TV-monitor through HD SDI output. (With 75-ohm termination.)



HD TV-monitor

17-3. Compensation flow

The AJ-HDC27AP has Automatic blemish compensation function. Execution procedure of Automatic compensation is shown below.



17-4. Compensation Procedures

4-1. Initial setting (Menu setting of DEFECT COMPENSATON page)

Before start an adjustment, Set items (CAM SERVICE level) following portion. (portion , Sometimes it isn't possible to compensate blemish (es) in case of wrong setting.)

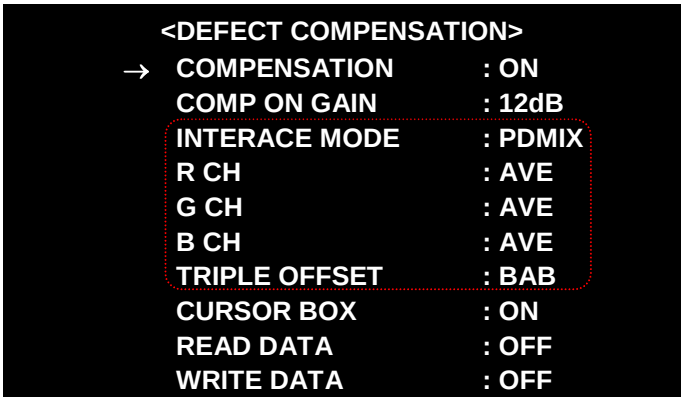


Figure Ble-1 Defect Compensation page

4-2. Execution of Automatic compensation (ENTRY (AUTO) page)

1. Open the "<DEFECT COMPENSATION> page" in CAM SERVICE level.
2. Set "COMP ON GAIN" item to desired gain value. (Compensation works in the gain beyond the value set up in this item.)
3. Open the "<ENTRY (AUTO) page>" in CAM SERVICE level.
4. Set the automatic compensation signal level (contrast ratio *[1]) with "PICKUP LEVEL R/ G or B" items. The AJ-HDC27AP detects blemish which bevel is more than the specified level by this set up.

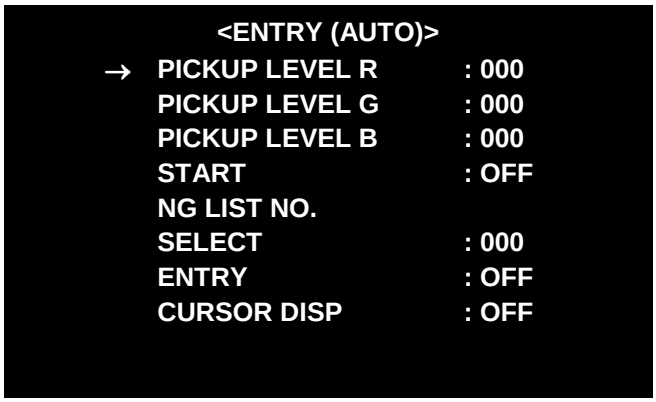


Figure Ble-2 ENTRY (AUTO) page

*1 contrast ratio: blemish signal level patio at the Built-in color bars signal is 100%.

5. Set "START" item to ON by JOG DIAL in the unit. By this operation, The unit will execute blemish detection for compensation in whole screen, automatically. And while executing automatic compensation, blink "PICKUP" character on the lower right of the screen. (It takes about 30 seconds)
6. When "OK" character appears in the place of "PICKUP", automatic compensation is completed.
7. Close menu screen and then turn off the power of the Unit. (Compensation result will be stored in the built-in memory of the Unit automatically.)

4-3. Result confirmation

After execution of automatic compensation the number of detection result and the number of blemish which wasn't compensated will be displayed in lower part of "ENTRY (AUTO)" page as the result status table. (Refer to Figure Ble-3) Please confirm whether all blemishes were compensated with this status display by viewing the TV-monitor. As the standard of a confirmation, Blemish compensation specification is shown below.

	LVL	CNT
R	015	003
G	010	006
B	025	004
Y		001
NG		001

Figure Ble-3 Result status table

LVL : Display PICKUP LEVEL menu item's value

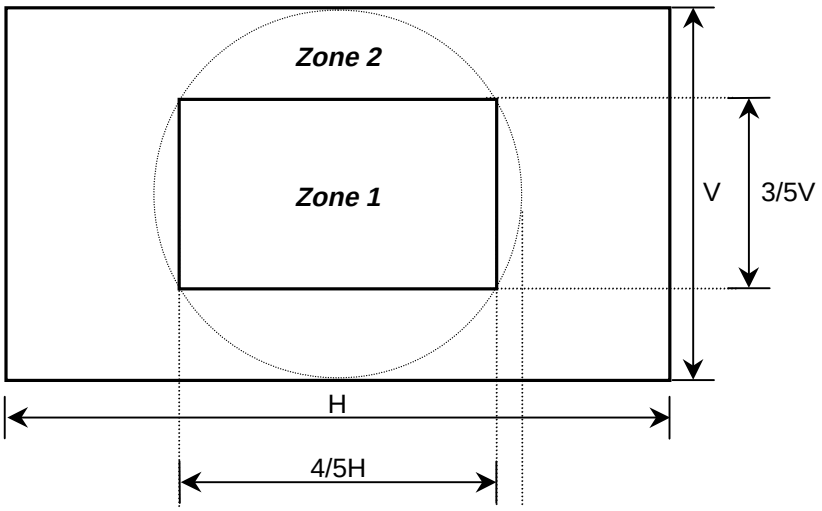
CNT : The number of the points which were detected and compensated as blemish(es). (Display the each color, "Y" shows two or more blemishes were detected at the same position)

NG : The number of the position because that was which wasn't compensated in "compensation inhibition position (refer to 5-4.)".

Observation environment

Measurement part	HD SDI OUT connector
Circumstance temperature	77°F (25°C)
GAIN setting	+18dB
AWB SW setting	PRST (PRESET)
SETUP level	0%

Specification



Contrast ratio*1	Zone 1	Zone 2
0% - 8%	No count	No count
8% - 13%	less than 2	less than 2
13% - 15%	0	less than 2
15% or more	0	0

*1 Contrast ratio: blemish signal level patio at the Built-in color bars signal is 100%.

4-4. Manual compensation procedure

In case it couldn't compensate all blemish in automatic compensation, it is also possible to perform blemish compensation manually by using cursor. Following shows concrete manual compensation procedures by the case required.

I) Manual compensation for position which was not detected automatically

1. Close LENS iris and then execute "ABB" by front switch.
2. Open the "<DEFECT COMPENSATION> page" in CAM SERVICE level.
3. Set "COMP ON GAIN" item to desired gain value. (Compensation works in the gain beyond the value set up in this item.)
4. Open the "<ENTRY (MANUAL) page>" in CAM SERVICE level.
5. Set menu items are shown below.

DEFECT SIZE	**:**	**3**
GAIN	**:**	**OFF**

6. Set "DEFECT COLOR" item to R / G / B or Y, according to color of blemish. (If two or more color of blemish appear in the same position, select "Y".)

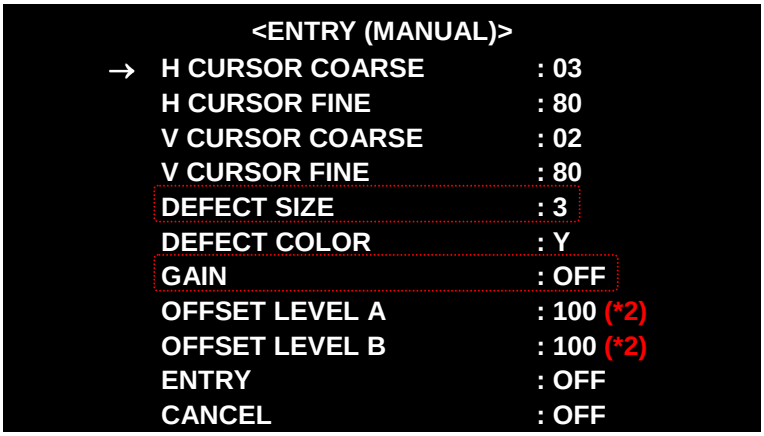


Figure Ble-4 ENTRY (MANUAL) page

7. Observe TV-monitor and then adjust "H CURSOR COARSE and FINE" item so that the H cursor position comes to target blemish.
8. Observe TV-monitor and then adjust "V CURSOR COARSE and FINE" item so that the V cursor position comes to reduce the blemish.
9. Set "ENTRY" item to ON.
10. When "ENTRY" character appears on the lower right of the screen, data store will be completed.
11. Close menu screen and then turn off the power of the Unit.

NOTE:

*2 "OFFSET A, B" menu items don't work in current camera system control software Version T1.01-00-0.01, as of March/ '01. (A future schedule is undecided.)

II) When compensation is fully impossible

In this case, there are two solutions by manual compensation.

a) Re-setup of PICKUP LEVEL

1. Open “<ENTRY (AUTO)>” page in CAM SERVICE level.
2. Re-Setup “PICKUP LEVEL R/ G or B” items to level down (down detection level).
3. Execute automatic compensation again. (Set “START” item in “<ENTRY (AUTO)>” page to ON.)

b) Fine adjustment of cursor position

1. Open “<EDIT / DELETE>” page in CAM SERVICE level.
2. Select Defect number desired position of fine cursor adjustment by “DEFECT NO.” item.
3. Set “DELETE” item to ON (turn JOG DIAL) and then press JOG DIAL.
4. Open “<ENTRY (MANUAL)>” page in CAM SERVICE level.
5. Set menu items are shown below.

DEFECT SIZE	**:**	**3**
GAIN	**:**	**OFF**

6. Set “DEFECT COLOR” item to R / G / B or Y, according to color of blemish. (When two or more color of blemish appear in the same position, select “Y”.)

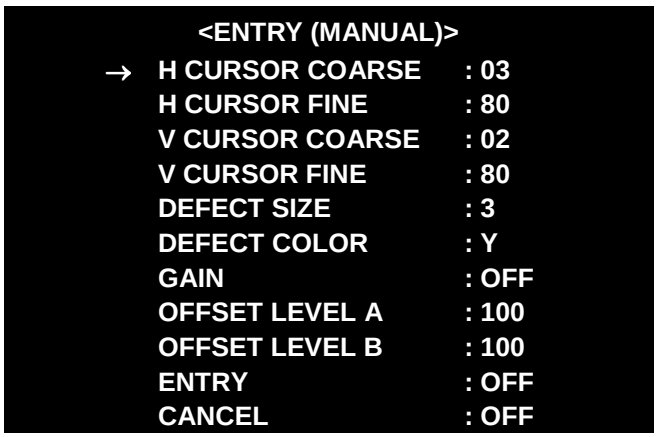


Figure Ble-5 ENTRY (MANUAL) page

7. Observe TV-monitor and then adjust “H CURSOR COARSE and FINE” item so that the H cursor position comes to target blemish.
8. Observe TV-monitor and then adjust “V CURSOR COARSE and FINE” item so that the V cursor position comes to reduce the blemish.
9. Set “ENTRY” item to ON (turn JOG DIAL) and then press JOG DIAL.
10. When “ENTRY” character appears on the lower right of the screen, data store will be completed.
11. Close menu screen and then turn off the power of the Unit.

17-5. Remarks

5-1. Delete all cursor position data in the built-in memory

1. Open “<EDIT / DELETE>” page in CAM SERVICE level.
2. Set “ALL DATA CLEAR?” item to ON by JOG DIAL operation.
3. Set “REALY ALL CLEAR?” item to ON by JOG DIAL operation.
4. When “ALL CLR” character appears on the lower right of the screen, data deletion will be completed.
5. Close menu screen and then turn off the power of the Unit.

5-2. Delete registered data one by one

1. Open “<EDIT / DELETE>” page in CAM SERVICE level.
2. Select “DEFECT NO.” to desired position of cursor.
3. Set “DELETE” item to ON by JOG DIAL operation.
4. When “DELETE” character appears on the lower right of the screen, data deletion will be completed.
5. Close menu screen and then turn off the power of the Unit.

5-3. Change Parameter about blemish compensation

1. Open “<EDIT / DELETE>” page in CAM SERVICE level.
2. Select “DEFECT NO.” to desired position of cursor.
3. Change some parameters in “<EDIT / DELETE>” page (DEFECT COLOR, DEFECT SIZE etc.).
4. Set “CHANGE” item to ON by JOG DIAL operation.
5. When “CHANGE” character appears on the lower right of the screen, data change will be completed.
6. Close menu screen and then turn off the power of the Unit.

5-4. About the position inhibited to register the compensation data

Depending on the position for the blemish compensation, blemish compensation doesn’t work properly. In that case, it display “NG” on the lower right position on the screen and inhibit registration of the blemish compensation position. The condition “a)” is shown below.

a) : position of V CURSOR is the same line of the blemish compensated position and H cursor is +/- 2.

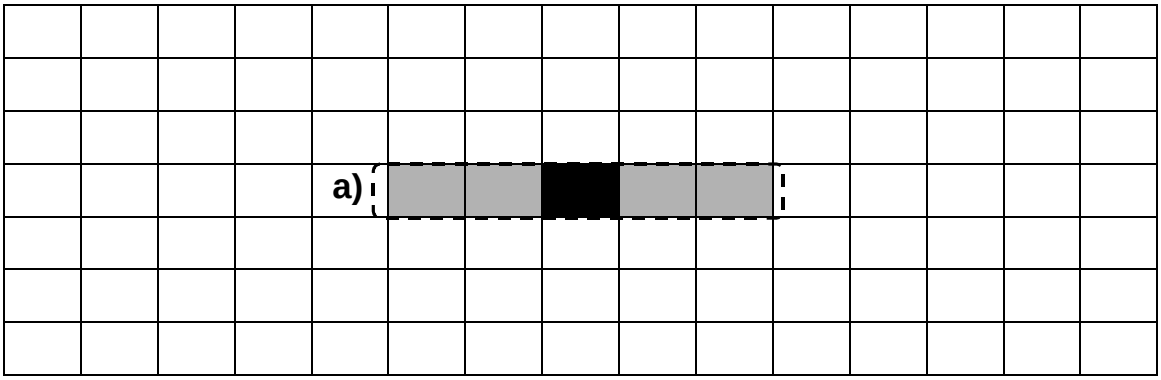


Figure Ble-6 The position inhibited to register the compensation data

: Registered blemish compensation position

: Registration inhibited position

17-6. Trouble Shooting

Symptom	Cause	Check point
Blemish can't be compensated even COMPENSATION item on menu is set to "ON".	Wrong setting of fixed setting item.	<DEFECT COMPENSATION> page has items which must have fixed setting. Confirm if those items are fixed as factory default. (See "4-1. Initial Setting" for details.)
Blemish compensation position number (DEFECT No.) is different from before.	DEFECT No. is changed.	DEFECT No. is automatically set from top left of monitor by the direction of scanning. Therefore when new compensation position is registered, another DEFECT No. may be changed.
"NG" display appeared on the lower right of the screen when trying to register a blemish compensation position.	Tried to execute registration for the registration prohibited position.	Refer to the "5-4. About the position inhibited to register the compensation data" page.

17-7. FAQ (Frequently Asked Question)

Question	Answer
When execute blemish compensation, Which should I set to position of GAIN SW on the unit?	• In the AJ-HDC27AP, GAIN setting while the blemish compensation used by only MENU setup. Therefore you don't have to set GAIN SW to some position. • By setting value of "COMP ON GAIN" item in the <DEFECT COMPENSATION> page, it is possible to enable compensation in case of level more than the setting value on "COMP ON GAIN" item. • When you want to enable the blemish compensation in all GAIN SW positions, Set "GAIN" item in the ENTRY (MANUAL) menu page to OFF.
Can I store the blemish compensation data as backup to some place?	• Yes • Normally, blemish compensation data is stored in IC201 (NV RAM) on the CAM_SYS P.C.Board. • The AJ-HDC27AP is possible to store and read all blemish compensation data in IC202 (Flash memory) on the CAM_SYS P.C.Board as the BACKUP. by following operation in the DEFECT COMPENSATION menu page. DATA WRITE: Set "READ DATA" item to ON. DATA READ: Set "WRITE DATA" item to ON. • Blemish compensation data is not stored to any extra media (SD CARD etc.)

SECTION 3

DISASSEMBLY PROCEDURES

CONTENTS

1. Disassembly Procedures DIS-1

Disassembly Procedures Flowchart DIS-1

1-1. Removal of the Cassette Cover DIS-1

1-2. Removal of the Left Side Panel DIS-1

1-3. Removal of the Right Side Panel DIS-1

1-4. Removal of the Cassette-up Unit DIS-2

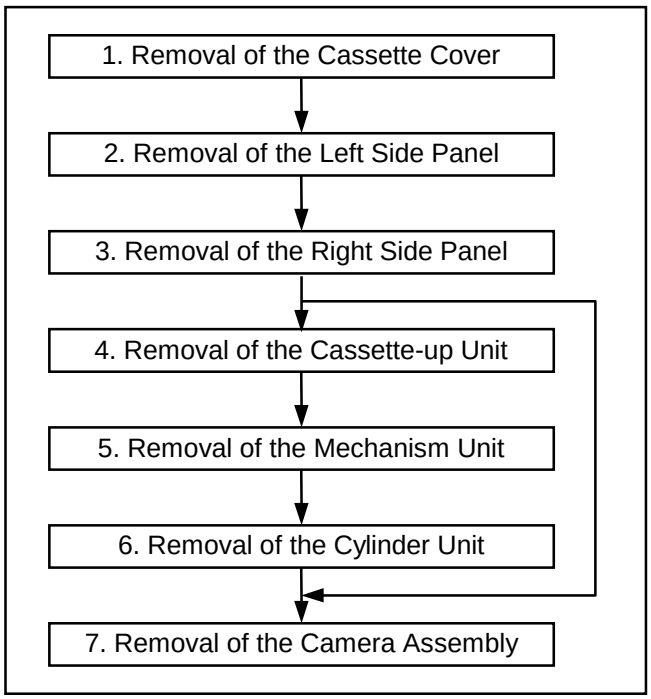
1-5. Removal of the Mechanism Unit DIS-2

1-6. Removal of the Cylinder Unit DIS-3

1-7. Removal of the Camera Assembly DIS-4

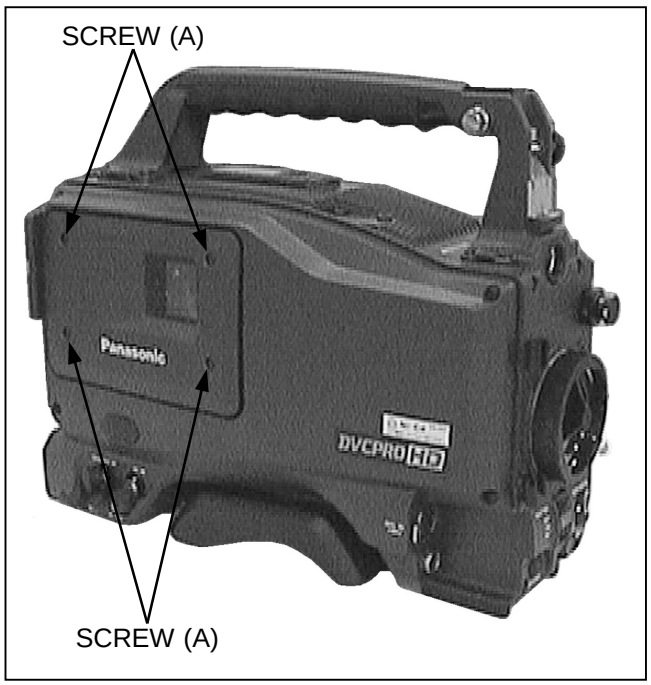
1. Disassembly Procedures

Disassembly Procedures Flowchart



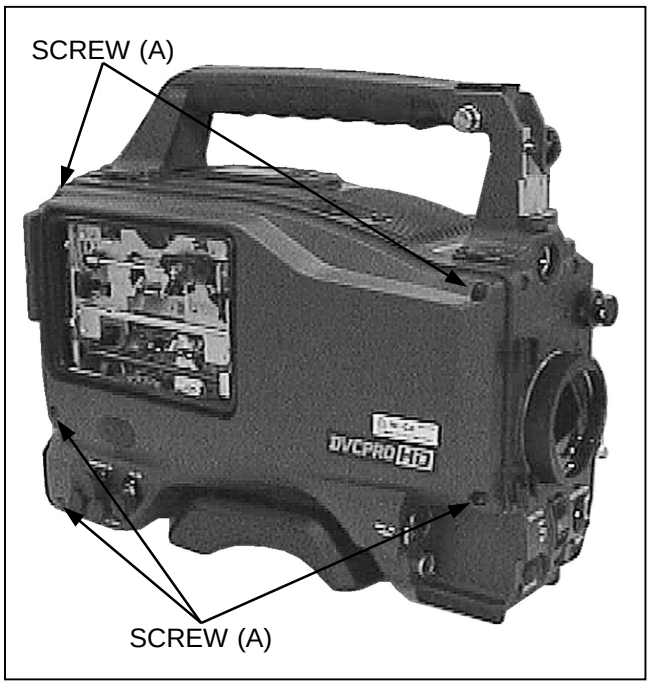
1-1. Removal of the Cassette Cover

1. Unscrew the 4 screws (A) and remove the Cassette Cover.



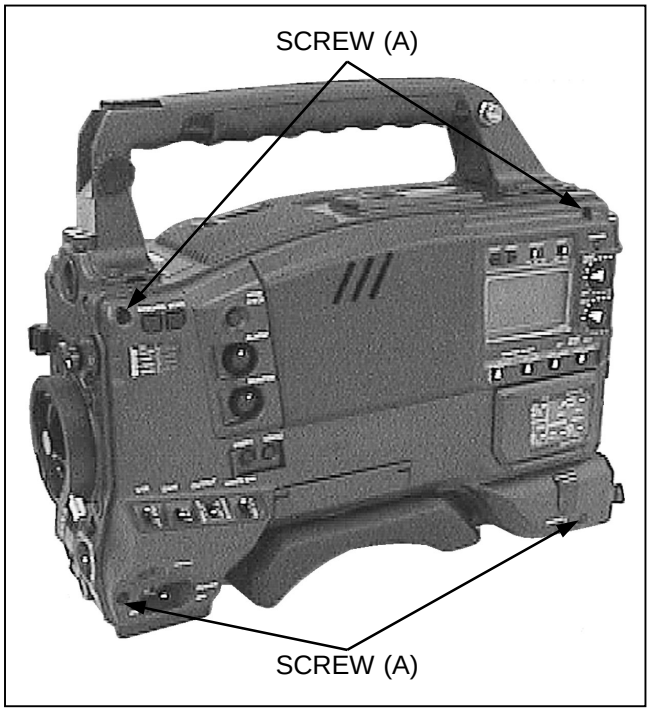
1-2. Removal of the Left Side Panel

1. After remove the Cassette Cover, loosen the 5 screws (A) and remove the Left Side Panel.



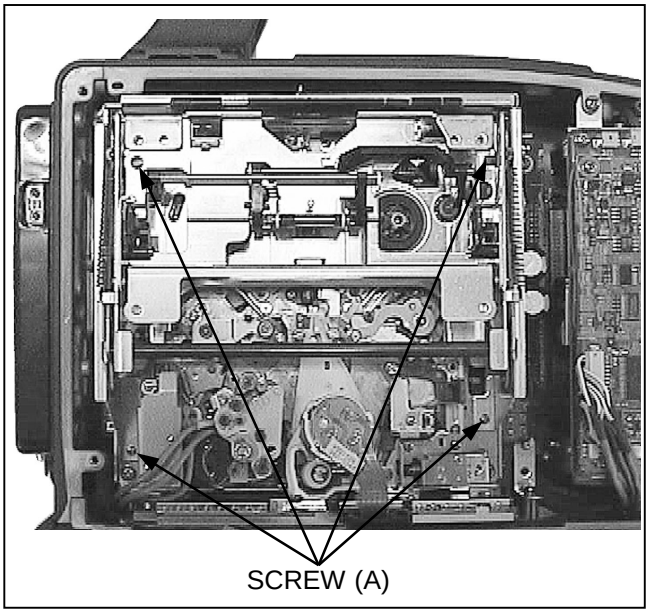
1-3. Removal of the Right Side Panel

1. Loosen the 4 screws (A) and open the Right Side Panel toward you carefully.



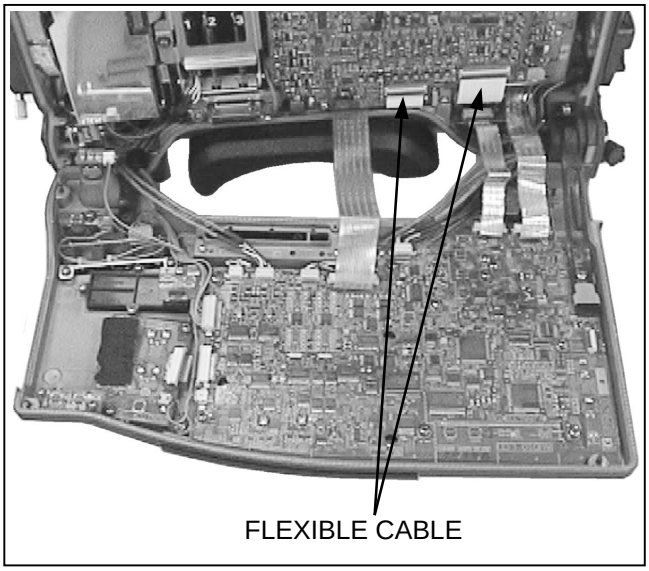
1-4. Removal of the Cassette-up Unit

1. After remove the Left Side Panel, unscrew the 4 screws (A) and remove the Cassette-up Unit.

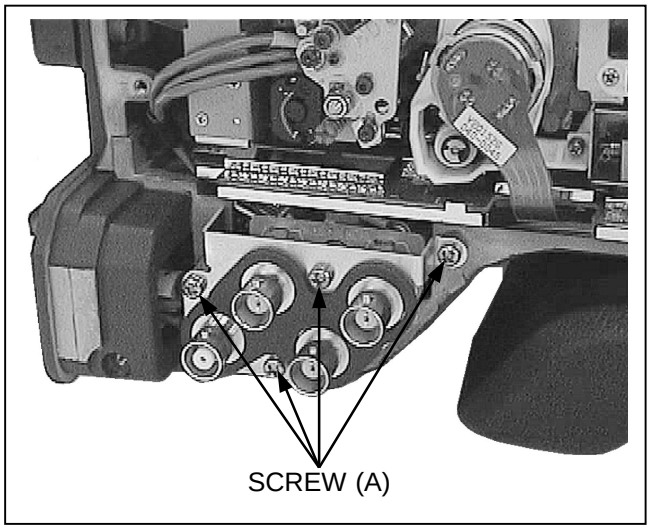


1-5. Removal of the Mechanism Unit

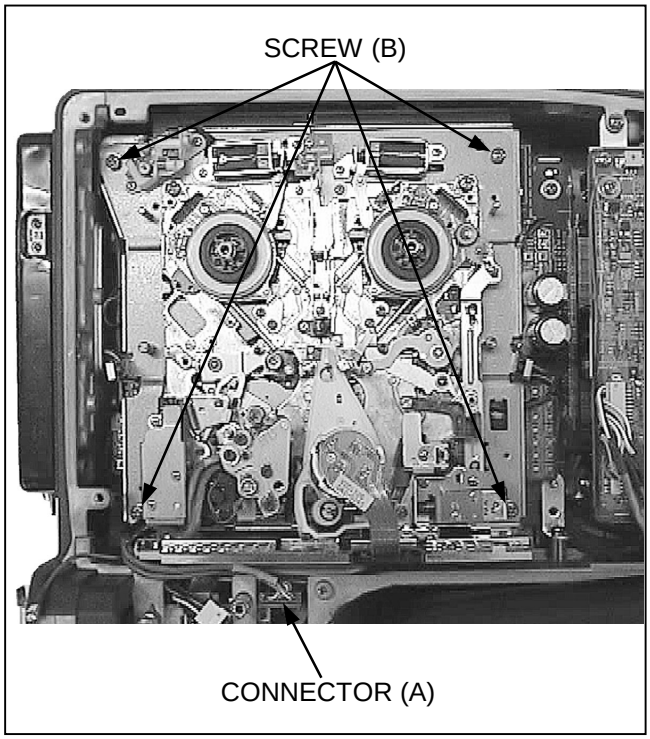
1. After open the Right Side Panel toward you, remove the 2 Flexible Cables on the RFEQ Board.



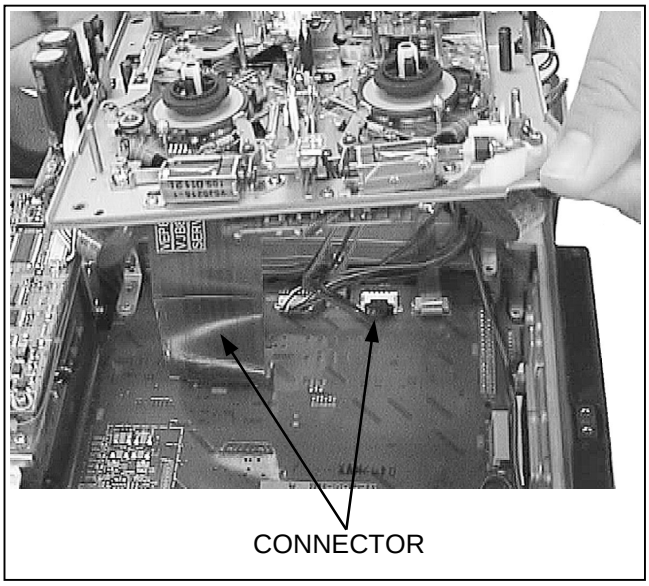
2. After remove the Left Side Panel, unscrew the 4 screws (A) and remove the BNC Terminal Unit.



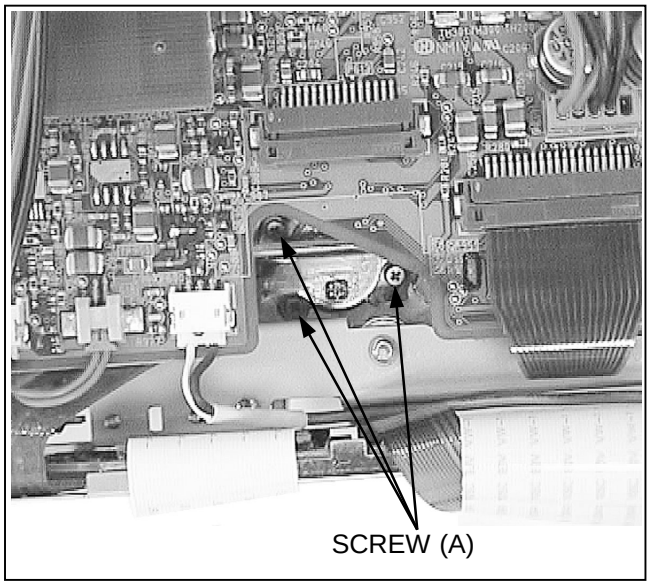
3. Remove the Connector (A) and unscrew the 4 screws (B).



4. Lift up the Mechanism Unit carefully, disconnect the 2 connectors and remove the Mechanism Unit.

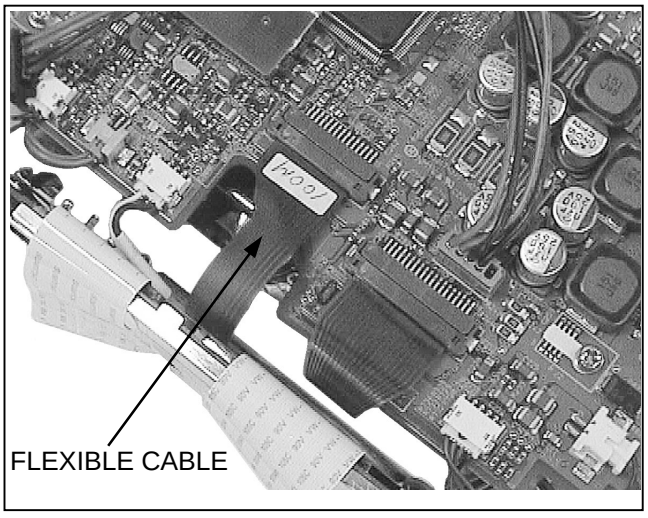


2. Unscrew the 3 screws (A) on the back side of the Mechanism Unit.

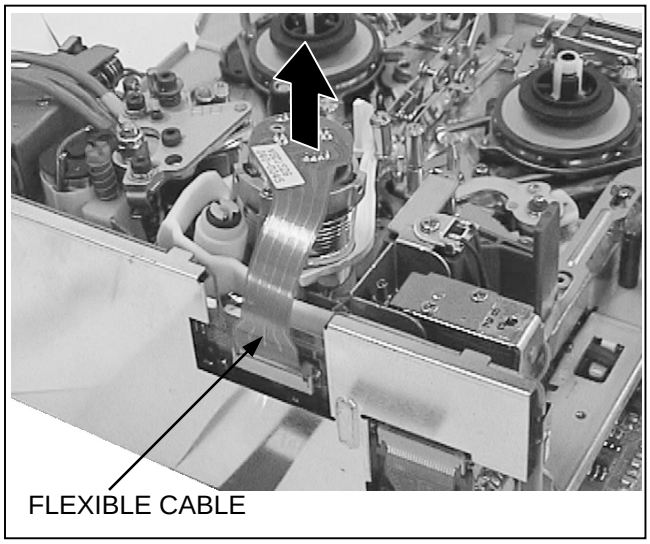


1-6. Removal of the Cylinder Unit

1. After remove the Mechanism Unit, remove the Flexible Cable on the back side of the Mechanism Unit.

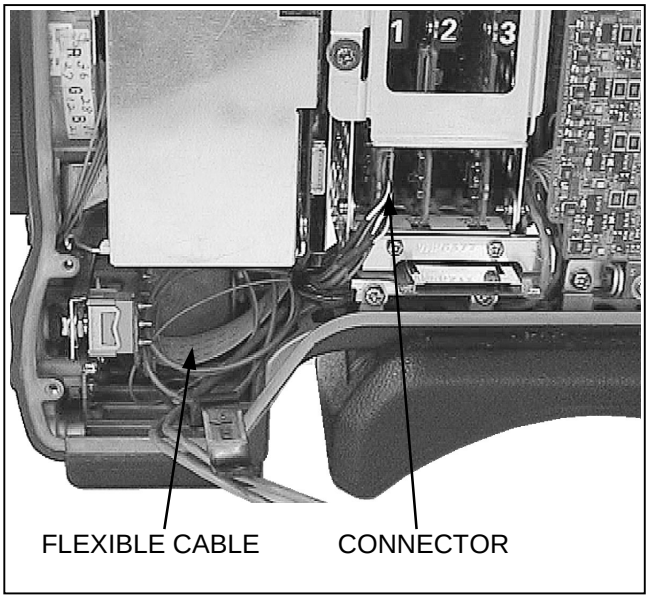


3. Disconnect the Flexible Cable on the top side of the Mechanism Unit and remove the Cylinder Unit.

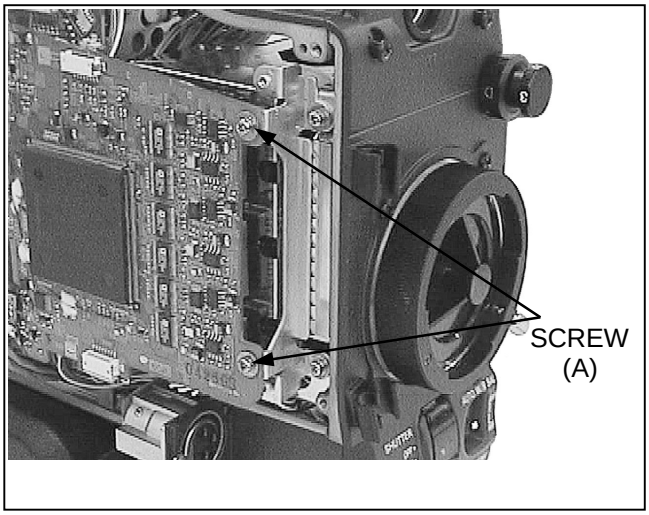


1-7. Removal of the Camera Assembly

1. Disconnect the Flexible Cable and Connector.



2. Unscrew the 2 screws (A).



3. Unscrew the 4 screws (A) and remove the Camera Assembly.

